

SOURCE CONTROL EVALUATION REPORT

Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon
DEQ ECSI No. 1430

For
Oregon Department of Environmental Quality
September 1, 2022

Project: BCSAmerica-1-02

N|V|5

September 1, 2022

Oregon Department of Environmental Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Attention: Rob Hood

Source Control Evaluation Report
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon
DEQ ECSI No. 1430
Project: BCSAmerica-1-02

NV5 is pleased to submit this Source Control Evaluation Report for the former Automatic Vending Company site located at 5001 North Lagoon Avenue in Portland, Oregon (subject property). This report is submitted in accordance with the requirement to perform a source control evaluation as part of subject property closure within the Oregon Department of Environmental Quality's Voluntary Cleanup Program.

Please call if you have questions concerning this submittal.

Sincerely,

NV5



Mike F. Coenen, P.E.
Principal Engineer

cc: John Jansen, BCS America LLC

JKP:EAH:MFC:kt

Attachments

One copy submitted

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ACRONYMS AND ABBREVIATIONS

BEHP	bis(2-ethylhexyl)phthalate
BGS	below ground surface
BMP	best management practices
BS	blank spike
BSD	blank spike duplicate
COI	compound of interest
COPC	chemical of potential concern or contaminant of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CUL	Cleanup Level
DCE	dichloroethene
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DEQ	Oregon Department of Environmental Quality
ECSI	Environmental Cleanup Site Information
EPA	U.S. Environmental Protection Agency
EPH	extractable petroleum hydrocarbon
ESA	Environmental Site Assessment
ICP-MS	inductively coupled plasma mass spectrometry
I.D.	identification
JSCS	Joint Source Control Strategy
LUST	Leaking Underground Storage Tank
MCPA	4-methyl-2-chlorophenoxyacetic acid
MCPP	2-(2-methyl-4-chlorophenoxy) propionic acid
MDL	method detection limit
mg/kg	milligrams per kilogram
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
MTBE	methyl tertiary butyl ether
NC	not calculated
NE	not established
NFA	No Further Action
not detected	compound not detected at a concentration equal to or greater than the laboratory method reporting limit or reporting detection limit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PCP	pentachlorophenol
PFA	perfluoroalkoxy
pg/g	picograms per gram
QA	quality assurance
QC	quality control
RBC	risk-based concentration

REC	recognized environmental condition
RPD	relative percent difference
SCE	Source Control Evaluation
SIM	selective ion monitoring
SLV	screening level value
SVOC	semi-volatile organic compound
TCDD	tetrachlorodibenzodioxin
TCE	trichloroethene
TEQ	toxicity equivalent quotient
TMB	trimethylbenzene
TPH	total petroleum hydrocarbon(s)
TSS	total suspended solids
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
USGS	U.S. Geological Survey
UST	underground storage tank
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
VPH	volatile petroleum hydrocarbon

1.0 INTRODUCTION

This SCE report is submitted on behalf of BCS America LLC in accordance with the DEQ VCP requirements for the former Automatic Vending Company site located at 5001 North Lagoon Avenue in Portland, Oregon (subject property).

The SCE components described herein were completed in general accordance with the work plans submitted to DEQ (GeoDesign, Inc., 2021a,b,c,d), which were approved by DEQ. Specifically, this report presents an SCE that includes a discussion of the collection/conveyance line assessment, cleaning and modifications, and verification stormwater sampling in accordance with DEQ's requirements for this evaluation. This report also summarizes soil and groundwater assessments and remediation activities conducted at the subject property.

Acronyms and abbreviations used herein are defined above, immediately following the Table of Contents.

1.1 PURPOSE AND OBJECTIVES

The purpose of this SCE report is to provide the results of the identification, evaluation, and control of historical sources of contamination on the subject property with the potential to impact stormwater and groundwater discharging to the Willamette River. This SCE was conducted in general accordance with DEQ's *Guidance for Evaluating the Stormwater Pathway at Upland Sites*, dated January 2009 (updated October 2010); DEQ/EPA's *Portland Harbor Joint Source Control Strategy*, dated December 2005; and the *EPA Record of Decision, Portland Harbor Superfund Site*, dated January 2017. This SCE is intended to provide supporting documentation to assist DEQ in completing an uplands source control decision for the subject property to satisfy the DEQ JSCS SCE requirements.

2.0 SUBJECT PROPERTY DESCRIPTION

The subject property includes Tax Lot 700 of Multnomah County Tax Map 1N1E20A. The subject property is located on Swan Island in the Willamette River. Swan Island was connected to the mainland sometime between 1927 and 1940 using dredge material reportedly originating from the Willamette River. The Portland Airport reportedly occupied Swan Island from 1927 through 1940 and it appeared that a runway may have historically occupied a portion of the subject property. In 1944, the subject property consisted of a parking lot with a building near the western side of the subject property. The current warehouse building was constructed on the subject property in 1963, with additions constructed in 1969 and 1978. The warehouse building consists of an approximately 51,100-square-foot, metal-framed structure with a slab-on-grade foundation that is occupied by warehouse and office space.

The shop building located on the southwestern portion of the subject property was constructed in 1973/74 and consists of an approximately 1,200-square-foot, metal structure with a slab-on-grade foundation.

According to a Phase I ESA (K&S Environmental, 2018), the subject property has been occupied by a distribution warehouse for candy and vending machine businesses (1963 through 2013), catering and equipment occupants and BCS America (2013 through 2019), Total Handling Solutions (2015 through 2019), Temp Control Mechanical (2016 through 2019), and Green State of Mind (2016 through 2019). The subject property is currently vacant and is undergoing renovations for the new occupants (Walter E. Nelson Co.) following the sale of the property.

Properties adjoining the subject property include Temp Control Mechanical to the west; Stagecraft Industries to the northwest; North Lagoon Avenue to the north, across which is a trucking storage area; North Ballast Street to the east, across which is Olsa Resources; TCM Corporation to the southeast; and vacant commercial/industrial space to the south. The subject property is shown relative to surrounding physical features on Figure 1. The subject property layout and adjacent properties are shown on Figure 2.

2.1 SUBSURFACE CONDITIONS

Our understanding of site-specific subsurface conditions is based on our review of previously completed environmental assessments by others and our subsurface explorations completed in July 2019 and July 2020 (see Section 3).

Based on the history of Swan Island, it appears that significant amounts of fill, consisting of dredged material from the Willamette River, was historically placed beneath the subject property. During drilling activities, it was difficult to determine the contact between the upper hydraulically placed fill and lower native alluvial soil because the dredged material is similar to the presumptive native material. Therefore, only soil that was clearly and distinguishably fill material was identified as fill. However, it is likely that material identified as “native” soil could be historically placed fill.

During our July 2019 and July 2020 investigations, fill was encountered in borings DP-11 through DP-15 and DP-17 through DP-19. The fill material consists of sand with trace amounts of silt and was observed overlying a concrete slab at approximately 7.5 feet BGS in borings DP-11 through DP-13. This fill material appears to be the same fill material that was encountered off site during previous investigations (PEMCO, 1992). The fill material appeared to thin to the north and east, away from the shop building. Pea gravel was encountered in boring DP-3 (former shop UST area). Fill material was not encountered in the boring (DP-16) advanced beneath the subject property structure. It is likely that shallow fill material identified in other borings advanced at the subject property was removed during construction of the subject property structure.

Native soil below the fill consists of sand with trace amounts of silt and gravel. A gray silt layer with some clay and trace sand was encountered in borings DP-1, DP-2, DP-3, and DP-14 through DP-17 at depths between 22 and 23 feet BGS, reflecting a relatively low-permeability deposit that may impede the vertical migration of contaminants associated with on-site fill material. Sand and gravel were encountered below the silt to the total depths explored.

Groundwater has been encountered in temporary explorations advanced at the subject property at depths between approximately 21 and 31 feet BGS. Zones of perched groundwater could also

be present at shallower depths, particularly where more permeable soil is underlain by less permeable soil. Groundwater levels are also anticipated to fluctuate with water levels in the nearby Willamette River.

The direction of groundwater flow has not been specifically determined using groundwater elevation data. The subject property is located near the longitudinal axis of Swan Island; therefore, groundwater likely discharges to the Swan Island Basin (approximately 350 feet north/northwest) and the Willamette River (approximately 840 feet to the south). Based on the exact location of the subject property relative to the Swan Island longitudinal axis and proximity to the Swan Island Basin, we infer that the majority of site-derived groundwater flows north/northwesterly toward the Swan Island Basin.

3.0 PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

A summary of previous environmental investigations and remedial actions conducted at the subject property is discussed in this section. More detailed background information of the subject property can be found in the reports listed in the “References” section. Soil and groundwater analytical results generated during prior phases of assessment are summarized in Tables A-1 through A-11 presented in Appendix A. Detected concentrations of contaminants exceeding EPA Portland Harbor CULs and/or DEQ JSCS SLVs are shown on Figures 2 through 4.

3.1 UST DECOMMISSIONING

The subject property formerly contained six USTs that included the following (see Figures 2 and 3):

- One 10,000-gallon and three 20,000-gallon gasoline USTs formerly located northeast of the warehouse building
- One 550-gallon motor oil UST and one 1,000-gallon waste oil UST formerly located northeast of the shop building

These six USTs were decommissioned in the early 1990s. Petroleum hydrocarbons were not detected in the eight confirmation soil samples collected from beneath the gasoline USTs formerly located northeast of the warehouse.

Oil-impacted soil was observed during decommissioning of the motor oil and waste oil USTs formerly located near the shop building. Approximately 134 tons of petroleum-impacted soil were excavated from the motor oil and waste oil UST pit and transported off site for disposal. Confirmation soil samples collected from the limits of the remedial excavation indicated that TPH was detected at a maximum concentration of 1,600 mg/kg (Method 418.1). The approximate limits of the excavation associated with decommissioning of the USTs is shown on Figure 3.

3.2 PEMCO

PEMCO advanced four borings in 1992 (B-1 through B-4) west of the remedial excavation conducted at the shop building to evaluate the extent of impacted soil left in place (see Figure 3). The property where borings B-1 through B-4 were located has since been sold to another entity; therefore, they are outside of the current subject property boundary. Chemical analytical results

of the soil samples collected from the borings indicated that oil was detected in fill material at concentrations up to 2,000 mg/kg. PEMCO and DEQ concluded that the detection of oil appeared to be associated with fill material and was not related to the UST release.¹ DEQ issued an NFA determination in May 1997 for LUST File No. 26-91-0415, which was associated with the USTs. However, DEQ listed the subject property as ECSI No. 1430 due to detections of oil in the undocumented fill material.

3.3 K&S ENVIRONMENTAL PHASE I ESA

K&S Environmental conducted a Phase I ESA of the subject property in December 2018. The Phase I ESA identified the following RECs at the subject property:

- The subject property was listed as ECSI No. 1430 because of impacted fill previously identified at the subject property.
- A below-ground hydraulic hoist was observed in the shop of the subject property.
- Grated drains were observed in the shop of the subject property.

K&S Environmental recommended removing the hydraulic hoist and conducting an investigation in the vicinity of the drains.

3.4 K&S ENVIRONMENTAL INVESTIGATION AND HOIST REMOVAL

K&S Environmental conducted a subsurface investigation at the shop building January 2019, which included advancing four borings (B-1 through B-4) to evaluate potential impacts to the subsurface from the hydraulic hoists and catch basins, as shown on Figure 3. The maximum detected concentrations of diesel- and oil-range hydrocarbons, PCE, and PCBs were detected in boring B-3 (at approximately 7 feet BGS) at concentrations of 25,800 mg/kg, 17,000 mg/kg, 10.3 mg/kg, and 0.109 mg/kg, respectively.

K&S Environmental subsequently removed two in-ground hydraulic hoists formerly located inside the shop building in March 2019. A product sample collected of the hydraulic fluid indicated that PCBs were not detected at concentrations greater than the laboratory reporting limits. Approximately 45.25 tons of impacted soil were excavated from beneath the in-ground hydraulic hoists and disposed of off site at the Hillsboro landfill. Residual impacted soil was left in place because additional excavation would have compromised the building's foundation and structural integrity. Eight confirmation soil samples were collected from the limits of the excavation. The maximum detected concentrations of diesel-range hydrocarbons, PCE, and total PCBs were detected in confirmation soil sample C3 at concentrations of 3,600 mg/kg, 3.42 mg/kg, and 0.1265 mg/kg, respectively. The detected concentrations of PCE exceeded the DEQ JSCS SLV, which is discussed in detail in subsequent sections of this report. Groundwater was not encountered to the total depth explored of 14 feet BGS during the 2019 assessment activities.

3.5 GEODESIGN

GeoDesign (now NV5) conducted a limited site investigation at the subject property that included advancing 13 direct-push borings (DP-1 through DP-13; Figure 3) on July 18 and 19, 2019, to

¹ DEQ's January 15, 2021, letter indicated that "shallow widespread surface contamination observed in the western portion of the site is similar in character and distribution to that associated with application of used for dust suppression."

evaluate soil and groundwater impacts in the shop area and advancing 6 direct-push borings (DP-14 through DP-19; Figure 2) on July 16, 2020, to evaluate the extent of fill material and groundwater conditions beneath the subject property. The groundwater investigation was conducted in accordance with a DEQ-approved work plan (GeoDesign, Inc., 2020). The results of the limited site investigations are discussed in the following sections.

3.5.1 Former In-Ground Hydraulic Hoist Area

Borings DP-1, DP-6, DP-8, DP-9, and DP-10 were advanced around the perimeter of the in-ground hydraulic hoist excavation to evaluate the lateral extent of residual contamination. Petroleum hydrocarbons, VOCs, PAHs, and PCBs were not detected in soil samples collected from these borings at concentrations greater than the applicable DEQ RBCs, EPA Portland Harbor CULs, or DEQ JSCS SLVs. Boring DP-2 was located in the area where the greatest concentrations of COPCs were detected during hoist decommissioning and was advanced significantly deeper than the previous excavation limits to evaluate the vertical extent of impacts. Elevated concentrations of the COPCs were not detected in the soil samples collected at depths greater than the previous excavation. Therefore, both the lateral and vertical extents of impacts were delineated and the remedial excavation conducted by K&S Environmental in March 2019 successfully remediated the impacts to soil from the release.

3.5.2 Fill Evaluation

Fill material (excluding pea gravel backfill) was encountered in GeoDesign borings DP-11 through DP-15, DP-17, and DP-18. The fill material encountered in the shop area was located above a concrete slab that was buried between 7.5 and 8.5 feet BGS. It appeared that the fill material thinned laterally to the north and east away from the shop building. The estimated extent of impacted fill material on the subject property is shown on Figure 2.

The fill material appears to be an area-wide unit associated with the former airport that occupied Swan Island from approximately 1927 through 1940. Chemical analytical results indicate that the fill material is impacted with petroleum hydrocarbons, SVOCs, PCBs, and metals at concentrations greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs. However, soil samples collected below the fill material indicated the COPCs were not detected at concentrations greater than applicable EPA Portland Harbor CULs and DEQ JSCS SLVs. The impacted fill material was encountered near the ground surface and at least 15 feet of “clean” material was present between the impacted fill material and groundwater.

3.5.3 Groundwater Evaluation

Groundwater samples were collected from temporary wells installed in direct-push borings DP-1 through DP-3 and DP-14 through DP-19. Groundwater sample chemical analytical results indicated that PCE, TCE, benzyl alcohol, arsenic, copper, and lead were detected in groundwater samples at concentrations greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs. The distribution of contaminants in groundwater is further discussed in Sections 8.0 and 9.0.

4.0 STORMWATER CONVEYANCE SYSTEM

The subject property stormwater conveyance system layout is shown on Figures 5 and 6. The majority of stormwater system infrastructure appears to have been constructed during site

development in 1963 and subsequent building additions between 1969 and 1978. Our knowledge of the stormwater system layout is based on the following:

- As-built drawings and permits (presented in Appendix B)
- City of Portland (online) records
- Camera surveys of the stormwater and wastewater discharge lines performed by the City of Portland in 1984 and 2000
- Camera survey inspections and dye testing of the stormwater system conducted by NV5 in 2021
- Recent modifications and upgrades to the stormwater collection and conveyance system completed in conjunction with site improvements completed between October 2021 and June 2022 for new tenancy

With the exception of small landscaped areas in the northeast and southeast corners, eastern margin, and along the building front of the subject property, the entire subject property surface is comprised of hardscapes, including building footprints and asphalt/concrete surfaces, that direct runoff to a series of catch basins. Stormwater collection and conveyance at the subject property has historically been accomplished via seven on-site catch basins (CB1 through CB7) and building roof drains² as shown on Figure 5. During site improvements in 2022, catch basin CB3 was removed and new stormwater infrastructure was constructed near the loading dock area in the western portion of the subject property. The 2021/2022 stormwater system improvements were largely separate (i.e., new additions) from the existing array of catch basins, and Figure 6 illustrates the updated and slightly modified collection and conveyance system. SCE-related work (including stormwater solids sampling from the array of catch basins) completed prior to May 2022 was completed for the stormwater system layout shown on Figure 5. SCE-related work completed after this date was completed for the stormwater system layout shown on Figure 6.

To achieve consistency with earlier SCE characterization work (specifically, stormwater effluent sampling), the stormwater sampling activities conducted in May 2022 did not incorporate discharges from the new catch basins located near the northwest corner of the site building. The new infrastructure (including a new catch basin at the loading dock servicing the sanitary system, a new catch basin at the loading dock servicing the stormwater system, a new catch basin and associated vegetated swale servicing the stormwater system with a separate lateral to the mainline in Lagoon Avenue) was constructed in accordance with the City of Portland Stormwater Manual. Due to the nature of this new construction, legacy solids were not a concern in the new stormwater infrastructure elements.

The on-site stormwater lateral conveyance inverts are approximately 4 feet BGS. As discussed in Section 2.1, groundwater has been encountered at the subject property between 21 and 31 feet BGS. Therefore, the on-site laterals are situated approximately 17 to 27 feet above the groundwater table.

² The original stormwater system layout assessed and sampled as of December 2021 was slightly modified during site improvements and stormwater catch basin upgrades.

The City of Portland stormwater conveyance system discharges to the Swan Island Basin via Outfall S-2, located approximately 350 feet northwest of the subject property.

5.0 POTENTIAL SOURCES AND CONTAMINANTS OF POTENTIAL CONCERN

Potential sources of contaminants and the primary COPCs are discussed in the following sections.

5.1 POTENTIAL CONTAMINANT SOURCES

Based on previous investigations and our knowledge of the subject property, the following are *potential* sources for subject property-related contaminants to impact the Portland Harbor section of the Willamette River:

- Potentially impacted soil associated with fill material historically placed at the subject property
- Potentially impacted soil associated with former USTs at the subject property
- Residual sediments, if any, located within the stormwater conveyance lines and originating from prior subject property-related activities and/or historical particulate matter on paved surfaces entering the stormwater conveyance network

5.2 EVALUATION OF PATHWAYS TO THE WILLAMETTE RIVER

The pathways for potential sources of contaminants to impact the Willamette River sediments include residual subject property-derived sediments migrating to City of Portland Outfall S-2 via stormwater conveyance lines, stormwater discharges, facilitated groundwater transport by stormwater conveyance lines, and groundwater discharging to the Willamette River.

5.2.1 Site-Derived Sediment Migration

Camera surveys of on-site stormwater conveyances obtained in January 2021 (Section 4) did not indicate the presence of accumulated sediments in on-site conveyance lines. However, the potential for site-derived sediment migration into the network of catch basins and subsequent delivery to the Willamette River is considered potentially complete, and the evaluation of this pathway is summarized in Sections 7.0 and 8.0.

5.2.2 Stormwater Discharges

The stormwater discharge pathway to the Willamette River is considered complete, and the evaluation of this pathway is summarized in Sections 8.0 and 9.0.

5.2.3 Facilitated Groundwater Transport by Stormwater Conveyance Lines

As discussed in Section 4.0, on-site stormwater conveyance laterals are located approximately 17 feet above the groundwater table. Therefore, we consider the likelihood of facilitated groundwater transport in stormwater conveyance lines to be low and does not require further evaluation.

5.2.4 Groundwater Discharging to the Willamette River

The groundwater discharge pathway to the Willamette River is considered complete, and the evaluation of this pathway is summarized in Sections 8.0 and 9.0.

5.3 CONTAMINANTS OF POTENTIAL CONCERN

5.3.1 Soil

Petroleum hydrocarbons were identified in the vicinity of the former USTs and hoists located in the shop area of the subject property. The USTs were removed in the early 1990s and petroleum-impacted soil was disposed of off site. Subsequent investigations identified fill material at the subject property and on the adjoining sites from the ground surface to a maximum depth of 7.5 feet BGS. These subsequent investigations indicated that fill material is potentially impacted with the following COPCs:

- Petroleum hydrocarbons
- PAHs
- PCBs
- Metals, including antimony, arsenic, cadmium, chromium, copper, lead, mercury, and zinc

Two in-ground hydraulic hoists were removed from the subject property in 2019 and petroleum-impacted soil was removed to the extent practicable. Confirmation soil samples indicated that a pocket of residual soil containing petroleum hydrocarbons and PCE was present in the shop area.

5.3.2 Groundwater

Groundwater samples collected from the subject property were analyzed for the following COIs:

- Gasoline-, diesel-, and oil-range hydrocarbons
- VOCs (including TCE and PCE)
- SVOCs
- Total and dissolved arsenic, copper, and lead

Groundwater samples were not analyzed for pesticides, herbicides, cyanide, manganese, vanadium, dioxins, furans, and tributyltin because there is no known historical agricultural use and the subject property has not been occupied by businesses that use, store, or manufacture equipment or chemicals that would contain these compounds.

Based on the analytical results, the primary COPCs in groundwater at the subject property include metals, SVOCs, and VOCs (TCE and PCE), which were detected in the shop area of the subject property.

5.3.3 Catch Basin Sediment

As requested by DEQ, the following COPCs for the Portland Harbor were evaluated in sediment samples collected from the on-site catch basins:

- Gasoline-, diesel-, and oil-range hydrocarbons
- Dioxins and furans
- VOCs
- Chlorinated pesticides
- Chlorinated herbicides
- Tributyltin

- Phthalates
- PAHs
- 13 Priority pollutant metals
- PCBs

5.3.4 Stormwater

As requested by DEQ, the following COPCs for the Portland Harbor were also evaluated in stormwater samples collected from the subject property:

- Gasoline-, diesel-, and oil-range hydrocarbons
- Dioxins and furans
- VOCs
- Tributyltin
- Phthalates
- PAHs
- Total arsenic, cadmium, chromium, mercury, and zinc
- PCBs

These stormwater COPCs are consistent with the detected analytes in sediment samples collected from the network of catch basins at the subject property.

6.0 STORMWATER MANAGEMENT PRACTICES

Since BCS America LLC has occupied the subject property (2013 through 2019) standard BMPs were employed to minimize pollutant contact with stormwater runoff. The routine BMPs employed at the subject property have included maintaining hardscapes at the subject property, periodically sweeping and cleaning outside areas, covering equipment stored outside as practicable, and periodically cleaning the catch basins.

Following BCS America LLC's departure, the subject property has been vacant and subject to improvements completed between October 2021 and June 2022 (including stormwater system upgrades/improvements) ahead of occupancy by a new party (Walter E. Nelson Co.). We understand that the new tenant will employ similar BMPs related to stormwater source control.

7.0 CLEANING, SAMPLING, AND STORMWATER IMPROVEMENT ACTIVITIES

As part of this SCE, NV5 conducted catch basin sediment sampling activities in December 2020 and December 2021 to characterize stormwater solids. Between these two sampling events, the catch basins were cleaned and four rounds of stormwater sampling were completed. Following the December 2021 catch basin sediment sampling activities and based on our visual observation that the previously installed basins were in deteriorated condition, catch basins CB1, CB2, CB5, and CB7 were removed and replaced with new catch basin structures with replaceable filter inserts. Catch basin CB3 was also removed in conjunction with subject property improvements. Any legacy sediments contained within the former catch basins were removed during the replacement process. Following catch basin replacement, a final round of

stormwater sampling was conducted in May 2022 during the final stages of site improvements that were completed in the spring of 2022. Detailed descriptions of these activities are presented in the sections below.

Our observations, coupled with the catch basin replacement activities, indicate that there is only a low likelihood of historical sediment delivery to the Willamette River from on-site stormwater conveyance lines, which were removed during recent cleaning and catch basin upgrade/replacement activities.

7.1 CATCH BASIN SEDIMENT SAMPLING

7.1.1 December 2020 Catch Basin Sediment Sampling

NV5 conducted catch basin sediment sampling on December 17, 2020. NV5 collected a five-point composite sediment sample from each of the catch basins in accordance with the City of Portland *Standard Operating Procedures, Guidance for Sampling Catch Basin Solids*, prepared by CH2M Hill, dated July 2003.

Each sediment sample was collected by first removing pooled stormwater from around each catch basin by slowly pumping the stormwater. A hand pump was used to remove large quantities of stormwater pooled around catch basins CB2, CB4, CB6, and CB7 until stormwater was pooled within approximately 1 foot of the respective catch basin. The remaining stormwater was removed slowly using a peristaltic pump. A thin layer of water was left so that fine materials in the solids were not disturbed. Pumped water was directed to the sanitary sewer.

NV5 advanced a decontaminated, 2-inch-diameter hand auger into each catch basin in each of the four corners and one in the center of the catch basin to collect samples representative of both the lateral and vertical extent of sediments. The hand auger was advanced to the bottom of the catch basin to collect a sediment sample representing the entire sediment column. The recovered material from the five points was placed in a decontaminated, stainless steel bowl and homogenized. The five-point composite soil sample collected from each catch basin was placed into laboratory-provided jars and stored immediately on ice. NV5 collected a duplicate sediment sample from catch basin CB4 for QA/QC purposes. Sediment samples were temporarily stored on ice until transported to the laboratory under chain-of-custody documentation.

All sampling equipment used in the collection of sediment samples was decontaminated prior to use at each catch basin location. Decontamination was performed on all reusable processing equipment that came into contact with sample media. Decontamination was performed prior to sampling each location using the following procedures:

1. Rinsed with tap water and scrubbed with a scrub brush until free of large particles (e.g., sediment or soil)
2. Washed with phosphate-free (Alconox™) detergent solution
3. Rinsed with tap water
4. Rinsed with distilled water

The results of the December 2020 catch basin sampling activities are summarized in Table 1 and discussed in Section 8.2.1.

7.1.2 December 2021 Catch Basin Sediment Sampling

Upon review of the December 2020 sediment sampling results and DEQ's associated comments (DEQ, 2021b) regarding the notable PCB concentrations in catch basin CB1 and notable PAH concentrations in catch basin CB5, NV5 collected an additional round of sediment samples from catch basins CB1, CB2, and CB5 on December 14, 2021. The intent of the additional sediment sampling activities was to evaluate the nature of catch basin sediments that re-accumulated in the specific catch basins previously exhibiting elevated PCB and/or PAH concentrations since the prior sampling event (approximately one year earlier) and following system cleaning activities (see Section 7.2). At the time of sampling, approximately 3 to 4 inches of sediment had accumulated in the basins since the prior sampling and cleaning events. The catch basin sediment sampling methods and activities completed in December 2021 paralleled those methods described above for the December 2020 sampling event.

The results of the December 2021 catch basin sampling activities are summarized in Table 1 and discussed in Section 8.2.2.

7.2 STORMWATER CONVEYANCE SYSTEM CLEANING

Stratus Corporation of Gaston, Oregon, installed stormwater cleanouts on the laterals servicing the subject property on January 22, 2021. The cleanouts were installed to allow the stormwater system to be blocked during cleaning and as compliance sampling points. The cleanouts were installed at the locations shown on Figures 5 and 6. The two laterals on the subject property consist of 10-inch-diameter concrete pipes located at depths between 3.5 and 4 feet BGS. Stratus Corporation installed a 6-inch-diameter standpipe in each lateral using a T-fitting. The excavation was backfilled and patched with asphalt concrete.

Stratus Corporation cleaned and scoped the on-site stormwater conveyance system on January 25, 2021. Before the conveyance lines were cleaned, the bottoms and sides of each catch basin were cleaned using a pressure washer and vacuum truck. Wash water in the catch basin bottoms was removed with the vacuum hose before it could overflow into the conveyance lines. After the catch basins were cleaned, the lines servicing catch basins CB1, CB2, CB3, and CB5 were also cleaned using a jetting system. The jetting system used pressurized water delivered by a "jet-head" throughout the conveyance lines. Wash water in the lines was captured by a vacuum truck at the cleanouts previously installed.

The lines were scoped to confirm the configuration after cleaning. On the basis of the scoping, it was determined that catch basins CB1 and CB2 discharge to the eastern lateral and catch basins CB3 and CB5 discharge to the western lateral, as shown on Figure 5.

Catch basins CB4, CB6, and CB7 were not jetted during cleaning because the discharge point of these catch basins was not initially verified. On the basis of the scoping, it was determined that one sewer line serviced catch basins CB4, CB6, and CB7. The line that services catch basins CB4, CB6, and CB7 could not be scoped in its entirety because of a 90-degree bend located in the northern parking area that prevented the camera from advancing. However, the following lines of evidence were used to determine that the line connects to the City of Portland sanitary sewer system:

- Blueprints show that catch basins CB6 and CB7 connect to the sanitary line (presented in Appendix B).
- The 90-degree turn at which the camera could not get past is in line with the known sanitary sewer lateral. The location of the sanitary sewer line is based on a camera inspection (332868) conducted in 2016 and permits.
- A dye test was conducted using catch basin CB6. Dye was observed in the sewer line connected to catch basins CB7 and CB4, but dye was not observed in either cleanout installed in the two on-site stormwater lines.

During cleaning, 991.84 gallons of water and 0.46 tons of solids were generated and disposed of at Patriot Environmental Services located in Portland, Oregon. The disposal receipts are presented in Appendix C.

7.3 INITIAL STORMWATER COMPLIANCE SAMPLING

Stormwater sampling events were conducted on March 18, March 28, April 24, and May 24, 2021. Each stormwater sampling event was conducted by collecting one sample from the cleanouts previously installed on the two stormwater laterals on the subject property (see Figure 5). Stormwater samples were collected using a peristaltic pump and disposable PFA tubing connected to a section of Teflon inserted into the water stream at the bottom of the cleanouts.

In accordance with DEQ requirements, a total of four stormwater sampling events were initially conducted. Two of the sampling events (first and third) represent “first flush” conditions (within 30 minutes of initial discharge) and the remaining two sampling events (second and fourth) were collected within three hours of initial discharge. The sampling locations are shown on Figure 5. Stormwater samples were collected during each event from the stormwater cleanouts installed in the on-site laterals. Peristaltic pumps equipped with new, disposal PFA and silicon tubing were used to collect the stormwater samples into laboratory-provided jars. A duplicate stormwater sample was also collected during each of the initial sampling events. All stormwater samples represent grab samples. Samples were temporarily stored on ice until transported to the laboratory under chain-of-custody documentation.

During each sampling event, the paved areas of the subject property were generally free of debris. Storage, parking, and traveled areas appeared generally clean and in order. Rainfall was greater than 0.2 inch of rain over 24 hours for the sampling events conducted in March and April. The fourth compliance sampling event was conducted on May 24, 2021, during a storm event that was predicted for over 0.28 inch of rain. However, actual rainfall was 0.12 inch of rain over 24 hours. Before sample collection, the antecedent dry period (less than 0.1 inch of rain in the 24 hours preceding the sampling storm) was met for each sampling event. Hydrographs for each sampling event (using the USGS Swan Island Rain Gage) are presented in Appendix D.

7.4 STORMWATER SYSTEM IMPROVEMENTS AND CATCH BASIN REPLACEMENT

7.4.1 Stormwater System improvements

In conjunction with site improvements associated with planned new tenancy of the subject property, upgrades to the stormwater and sanitary collection and conveyance systems were completed between October 2021 and June 2022. These improvements included the following elements:

- One new catch basin (CB8) and conveyance line (and new cleanout) connected to the sanitary system was constructed at the loading dock area.
- One additional catch basin (CB9) and conveyance line (and new cleanout) for the stormwater system was constructed at the loading dock area.
- One new catch basin (CB11) was installed immediately northwest of the loading dock area. As part of this improvement, former catch basin CB3 was removed; however, the conveyance line connecting catch basin CB5 to the municipal line was retained.
- A new, lined vegetated swale (intended to store and treat stormwater) and associated catch basin/swale overflow CB12 was constructed immediately north of the loading dock area. This vegetated swale also receives effluent from the newly installed catch basin CB11 that replaced former catch basin CB3.

Figures 5 and 6 show the stormwater and sanitary collection and conveyance features before and after system improvements, respectively.

7.4.2 Catch Basin Replacements

Field observations recorded during the December 2020 and December 2021 catch basin sediment sampling activities suggested that the condition of the originally installed catch basins could contribute to elevated concentration of contaminants in catch basin sediment and stormwater samples. Specifically, the older catch basins were not amenable to the use of modern replaceable filter inserts and exhibited significant corrosion that could facilitate the intrusion of subgrade material (e.g., site fill particulates and subgrade water temporarily in contact with site fill following rain events).

Based on these observations, NV5 coordinated the replacement of catch basins CB1, CB2, CB5, and CB7 in late April and early May 2022.³ The replacement work included complete removal of the former structures and replacement with new catch basin structures with replaceable filter inserts, which were not previously in working order.

7.5 SUPPLEMENTAL STORMWATER COMPLIANCE SAMPLING

Following the catch basin replacement and upgrade activities described in Section 7.4, NV5 conducted an additional round of stormwater sampling on May 24, 2022. The supplemental stormwater sampling was intended to characterize the nature of stormwater reflecting the improved system condition following cleaning and catch basin replacement activities. The methods of stormwater sample collection for the May 2022 sampling event were identical to those employed for previous stormwater sampling events described in Section 7.3.

³ Replacement of catch basin CB3 was not necessary because this catch basin was removed and replaced with new catch basin CB11 during site improvements. Although catch basin CB7 services the sanitary system, it was also replaced due to its particularly deteriorated condition.

The results of the May 2022 stormwater compliance sampling activities are summarized in Tables 2 and 3 and discussed in Section 8.3.

8.0 DATA SUMMARY

Soil, groundwater, catch basin sediment, and stormwater sample analytical results are compared to respective EPA Portland Harbor CULs for these sample media.⁴ If EPA Portland Harbor CULs are not established for a particular analyte, the results were compared to the DEQ JSCS Initial Upland Source Control SLVs (DEQ JSCS SLVs).⁵

A duplicate sediment sample was collected from catch basin CB4 during the December 2020 sampling event, and one duplicate stormwater sample was collected during each of the initial sampling events for QA/QC purposes. The highest detected value between the two samples (original and duplicate) was used for comparison.

The sediment and stormwater analytical results were also plotted on the charts appended to DEQ's *Guidance for Evaluating the Stormwater Pathway at Upland Sites*, dated January 2009 and updated October 2010. The charts are discussed further in Section 9.1, and the sediment and stormwater sample analytical results plotted on the DEQ curves (using one-half the detection limit for summed values) are presented in Appendix E.

As summarized in the attached summary analytical tables, calculated values for total PCBs, cPAHs, total PAHs, and 2,3,7,8-TCDD are derived using the full laboratory detection limit and also using one-half of the laboratory detection limit.

8.1 GROUNDWATER

GeoDesign conducted a groundwater investigation (see Section 3.5) that included the collection of nine groundwater samples from the subject property. Groundwater sampling analytical results are summarized in Appendix A. Grab groundwater samples collected from temporary direct-push borings are viewed as reconnaissance-level screening information, as this type of sampling typically yields biased-high results due to sorption of contaminants on entrained soil particles within the samples.

PCE and/or TCE were detected in groundwater samples collected from borings DP-1, DP-2, DP-3, and DP-14 (advanced in the vicinity of the shop) at concentrations greater than the EPA Portland Harbor CULs and DEQ JSCS SLVs. The detected concentrations of PCE and TCE are highest beneath and adjacent to the shop (at DP-2 and DP-3) and appear to attenuate in the presumed down-gradient (northerly) direction, as evidenced by decreasing PCE and TCE concentrations at the DP-14 groundwater sampling location. Further examination of detected VOC concentrations in groundwater samples collected from borings DP-3 and DP-14 also indicate that reductive dechlorination is occurring to some degree, as evidenced by increasing concentrations of cis-1,2-DCE (a breakdown product of PCE) moving in a northerly direction.

⁴ Table 17 of EPA's *Record of Decision for the Portland Harbor Superfund Site*, dated January 2017, updated January 14, 2020.

⁵ Table 3.1 of DEQ's *Portland Harbor Joint Source Control Strategy*, dated December 2005.

Total and dissolved arsenic were detected in groundwater samples DP-1W, DP-2W, DP-3W, DP-14W, DP-15W, DP-17W, and DP-19W at concentrations greater than the EPA Portland Harbor CUL and the DEQ JSCS SLV. However, arsenic is a naturally occurring element and according to a study done by USGS (Hinkle and Polette, 1999), arsenic concentrations in groundwater between 10 and 50 µg/L are widespread in the Willamette Basin.

Total copper and lead were detected in groundwater samples DP-1W and DP-14W at concentrations greater than the EPA Portland Harbor CULs and DEQ JSCS SLVs. However, dissolved copper and lead were not detected in groundwater samples DP-1W and DP-14W at concentrations greater than the EPA Portland Harbor CULs and DEQ JSCS SLVs. It appears that the total detected concentrations of copper and lead are likely elevated due to inclusion of suspended sediment in the sample.

Benzyl alcohol was detected in groundwater sample DP-2W at concentrations greater than the DEQ JSCS SLV but was not detected in the other groundwater samples at concentrations greater than the DEQ JSCS SLV. Therefore, it appears that the detected concentration is localized.

COPCs were otherwise either not detected or were detected at concentrations less than EPA Portland Harbor CULs and DEQ JSCS SLVs.

8.2 CATCH BASIN SEDIMENT

8.2.1 December 2020 Sediment Samples

Sediment samples (CB1 through CB7) and one duplicate sediment sample were collected from the on-site catch basins in December 2020 (prior to cleaning) and were analyzed for the following:

- Gasoline-range hydrocarbons by Method NWTPH-Gx
- Diesel- and oil-range hydrocarbons by Method NWTPH-Dx
- Organotins by EPA Method Organotins SIM
- VOCs by EPA Method 8260D
- PCBs by EPA Method 8082A
- SVOCs by EPA Method 8270E-SIM
- Phthalates by EPA Method 8270E
- 13 Priority pollutant metals by EPA Method 6020B (ICP-MS)
- Dioxins and furans by EPA Method 8290
- Organochlorine pesticides by EPA Method 8081B
- Organochlorine herbicides by EPA Method 8151

The December 2020 sediment sample chemical analytical results indicated the following:

- Tributyltin was detected in only one of the sediment samples (CB1), but at a concentration less than the EPA Portland Harbor CUL.
- PCBs were detected in sediment samples collected from catch basins CB4 and CB5 at concentrations greater than the DEQ JSCS SLV. Total calculated PCBs for the seven

sediment samples exceeded the EPA Portland Harbor CULs. However, only the calculated total PCBs detected in catch basins CB4 and CB5 exceeded the typical range of values for catch basin sediment at industrial sites.

- PAHs, cPAHs, and calculated total PAHs were detected in sediment samples CB1 through CB-5 at concentrations greater than the EPA Portland Harbor CULs. However, only the total calculated PAHs detected in catch basins CB1, CB2, and CB3 exceeded the typical range of values for catch basin sediment at industrial sites.
- BEHP was detected in four of the catch basins (CB4 through CB7) at concentrations greater than the EPA Portland Harbor CUL. However, the detected concentrations of BEHP were within the typical range of typical values for catch basin sediment at industrial sites.
- Arsenic, cadmium, copper, lead, and nickel were detected at relatively low concentrations in catch basins at the subject property. The detected concentrations of these metals were within the range of typical values for catch basin sediment at industrial sites.
- Chromium, mercury, and/or zinc were detected at concentrations exceeding the EPA Portland Harbor CULs and/or DEQ JSCS SLVs in sediment samples collected from catch basins CB3, CB4, CB5, CB6, and CB7. However, with the exception of chromium and mercury concentrations in the sediment sample from catch basin CB4 and zinc concentrations in the sediment samples collected from catch basins CB3 and CB5, the detected concentrations appeared to be within the range of typical values for catch basin sediments at industrial sites.
- The calculated 2,3,7,8-TCDD TEQ value for sediment samples collected from each catch basin exceeded the EPA Portland Harbor CUL and several individual dioxins and furans were detected at concentrations greater than the EPA Portland Harbor CULs and/or DEQ JSCS SLVs.
- Organochlorine pesticides were not detected in the seven sediment samples.
- Chlorinated herbicides were generally not detected in the seven sediment samples. Silvex was detected in sediment samples CB-2, CB-3, and CB-4 at relatively low concentrations. An EPA Portland Harbor CUL or DEQ JSCS SLV is not established for Silvex.

A summary of the sediment sample results is presented in Table 1. The laboratory reports and chain-of-custody documentation are presented in Appendix F.

8.2.2 December 2021 Sediment Samples

The December 2021 sediment samples collected from catch basins CB1, CB2, and CB5 were analyzed for the following:

- Diesel- and oil-range hydrocarbons by Method NWTPH-Dx
- PCBs by EPA Method 8082A
- SVOCs by EPA Method 8270E-SIM
- Phthalates by EPA Method 8270E
- 13 Priority pollutant metals by EPA Method 6020B (ICP-MS)
- Dioxins and furans by EPA Method 8290

The December 2021 sediment sample chemical analytical results indicated the following:

- Total PCBs were detected in sediment samples collected from catch basins CB1, CB2, and CB5 at concentrations greater than the DEQ JSCS SLV and EPA Portland Harbor CUL. Relative to the December 2020 sediment sampling results, the detected concentrations of PCBs were slightly greater at catch basin CB1 (i.e., slightly above the laboratory MRL), greater at catch basin CB2, and substantially lower at CB5.
- Calculated cPAHs in sediment samples CB1, CB2, and CB5 exceeded the EPA Portland Harbor CUL. Calculated total PAHs (using one-half of the detection limits) in sediment sample CB1 exceeded the EPA Portland Harbor CUL. The total calculated PAHs in catch basin CB1 exceeded typical values for catch basin sediment at industrial sites, and the total calculated PAHs in catch basins CB2 and CB5 were generally located at the “knee” of the distribution curve for typical values for industrial sites. Relative to the December 2020 sediment sampling results, the detected concentrations of PAHs were slightly lower at catch basin CB1, lower at catch basin CB2 (less than the EPA Portland Harbor CUL), and slightly greater (but less than the EPA Portland Harbor CUL) at catch basin CB5.
- BEHP was detected in the sediment sample collected from catch basin CB2 at a concentration greater than the EPA Portland Harbor CUL. However, the detected concentration of BEHP was generally consistent with the December 2020 sediment samples and appears to be within the range of typical values for catch basin sediment at industrial sites. BEHP was not detected at concentrations greater than the respective laboratory MRLs in the remaining sediment samples collected in December 2021.
- Arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc were detected at relatively low concentrations in catch basins at the subject property. Several metals were detected at concentrations exceeding EPA Portland Harbor CULs and/or DEQ JSCS SLVs (refer to Table 1). Relative to the December 2020 sediment sampling results, the detected concentrations of metals were slightly greater at catch basins CB1, CB2, and CB5. However, consistent with the December 2020 results, the detected concentrations of these metals appear to be within the range of typical values for catch basin sediments at industrial sites.
- The calculated 2,3,7,8-TCDD TEQ value for sediment samples collected from catch basins CB1, CB2, and CB5 exceeded the EPA Portland Harbor CUL and several individual dioxins and furans were detected at concentrations greater than the EPA Portland Harbor CULs and/or DEQ JSCS SLVs. Relative to the December 2020 sediment sampling results, the calculated TEQ concentrations were slightly greater at catch basins CB1, CB2, and CB5.

A summary of the sediment sample results is presented in Table 1. The laboratory reports and chain-of-custody documentation are presented in Appendix F.

8.3 STORMWATER

8.3.1 Initial Stormwater Compliance Sampling

Initial compliance stormwater samples were collected from the two on-site lateral cleanouts (SW-1 and SW-2) during four separate sampling events in March (two sampling events), April, and May 2021. The initial compliance stormwater sample analytical results indicated the following:

- Arsenic was detected in all of the stormwater samples at concentrations between 0.143 and 1.70 µg/L, which is greater than the EPA Portland Harbor CUL. Cadmium was detected in two of the samples collected at cleanout SW-2 at concentrations between 0.130 and 0.280 µg/L. Zinc was also detected in all of the stormwater samples at concentrations between 41.7 and 703 µg/L. However, the detected concentrations are relatively low and within the range of typical values for stormwater at industrial sites. Remaining metals were either not detected or were detected at concentrations less than the respective EPA Portland Harbor CUL and/or DEQ JSCS SLV.
- PCBs were only detected in one stormwater sample collected during the four sampling events. Aroclor 1254 was detected in the stormwater sample collected from cleanout SW-1 during the May 2021 sampling event at a concentration of 0.0741 µg/L, which is greater than the DEQ JSCS SLV. Aroclor 1254 was not detected in the duplicate stormwater sample collected from this sampling point. In addition, the calculated value for total PCBs was 0.2232 µg/L, which is greater than the EPA Portland Harbor CUL. This value is relatively low and is within the range of typical values for stormwater at industrial sites. PCBs were otherwise not detected in any of the stormwater samples collected.
- Chloromethane was detected in only one stormwater sample collected during the four sampling events. Chloromethane was detected in the stormwater sample collected from cleanout SW-1 during the May 2021 sampling event at a concentration of 4.04 µg/L, which is greater than the DEQ JSCS SLV. The detected concentration of chloromethane appears to be isolated and is not a primary COPC at the subject property.
- Benzo(b)fluoranthene and benzo(a)pyrene were detected in stormwater sample SW-1(032821) at concentrations greater than EPA Portland Harbor CULs, but less than DEQ JSCS SLVs. In addition, the calculated cPAH value for stormwater sample SW-1(032821) of 0.0309 µg/L is greater than the EPA Portland Harbor CUL. However, the calculated total PAH value for sample SW-1(032821) was within the range of typical values for stormwater at industrial sites. PAHs were otherwise either not detected or were detected at concentrations less than EPA Portland Harbor CULs and DEQ JSCS SLVs in the remaining sampling events.
- The calculated 2,3,7,8-TCDD TEQ value for all the stormwater samples ranged between 3.60E-06 and 1.44E-05 µg/L, which is greater than the EPA Portland Harbor CUL. However, dioxins and furans were generally not detected in the stormwater samples, including 2,3,7,8-TCDD.
- TSS was detected at concentrations ranging from 5,000 to 29,000 µg/L, which is less than the 1200-Z stormwater discharge permit benchmark for the Portland Harbor of 30,000 µg/L.

8.3.2 Supplemental Stormwater Compliance Sampling

Supplemental compliance stormwater samples were collected from the two on-site lateral cleanouts (SW-1 and SW-2) in May 2022 following catch basin replacement activities (see Section 7.4.2). The supplemental compliance stormwater sample analytical results indicated the following:

- Arsenic was detected in the stormwater samples at concentrations between 0.357 and 0.386 µg/L, which is greater than the EPA Portland Harbor CUL. Zinc was also detected in the stormwater samples at concentrations between 40.7 and 72.9 µg/L. Relative to the preceding stormwater compliance sampling results, the detected concentrations of metals were generally lower than or equal to previously detected values. However, consistent with

the earlier sampling results, the detected concentrations are relatively low and are within the typical range of values for stormwater at industrial sites. Remaining metals were either not detected or were detected at concentrations less than the respective EPA Portland Harbor CUL and/or DEQ JSCS SLV.

- PCB Aroclors were detected in stormwater samples SW-1 and SW-2 collected during the May 2022 sampling event at concentrations of 0.0113 µg/L and 0.0395 µg/L, respectively. The detected Aroclor concentration in stormwater sample SW-2 was greater than the DEQ JSCS SLV. In addition, the calculated values for total PCBs using one-half of the detection limits exceeded the EPA Portland Harbor CUL, which is consistent with the preceding May 2021 sampling event. Also similar to the previous detections, the detected PCB concentrations in May 2022 were slightly greater than the laboratory detection limits.
- VOCs (including chloromethane, which was previously detected in one stormwater sample collected from SW-1 in May 2021) were not detected in the supplemental stormwater samples collected in May 2022.
- Several PAHs, including benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and chrysene, were detected in stormwater samples SW-1 and SW-2 at concentrations greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs. In addition, the calculated cPAH values for stormwater samples SW-1 and SW-2 were greater than the EPA Portland Harbor CUL. Several PAHs were detected during the May 2022 stormwater sampling event that were not detected in preceding sampling events. However, the May 2022 sampling event achieved substantially lower laboratory detection limits than earlier events and this observation is not interpreted as an increase relative to earlier stormwater sampling events, and the calculated total PAH value for stormwater samples collected in May 2022 are within the range of typical values for stormwater at industrial sites.
- The calculated 2,3,7,8-TCDD values for stormwater samples collected in May 2022 ranged between 3.51E-06 and 4.58-06 µg/L, which are generally consistent with calculated values for preceding compliance stormwater sampling events and greater than the EPA Portland Harbor CUL. However, similar to prior sampling events, individual dioxins and furans were generally not detected in the stormwater samples, including 2,3,7,8-TCDD.
- TSS was detected at concentrations ranging from 21,400 to 36,800 µg/L in the May 2022 stormwater samples, which are less than or generally equal to the 1200-Z stormwater discharge permit benchmark for the Portland Harbor of 30,000 µg/L. The TSS values measured in May 2022 are generally greater than those previously measured in preceding compliance stormwater sampling events in 2021 and are further discussed in Section 9.1.

A summary of the stormwater sample results is presented on Tables 2 and 3. The laboratory reports and chain-of-custody documentation are presented in Appendix F.

8.4 QA/QC

The chemical analytical data was reviewed for QA/QC issues. Our review indicated that select analytes had detection limits that exceeded regulatory screening levels and/or the laboratory had assigned qualifiers to select reported values.

A discussion of analytes with detection limits greater than applicable regulatory screening levels is presented in Appendix F. In general, the detection limits were the lowest possible detection

limits achievable by the laboratories and only slightly exceeded the regulatory screening levels. Therefore, it is our professional opinion that these qualifications do not hinder our ability to accurately characterize the subject property.

VOCs were not detected in the trip blank samples analyzed. This indicates that cross contamination did not occur during transportation of the samples to the analytical laboratory.

A duplicate sediment sample was collected from catch basin CB-4 during the December 2020 sampling event, and duplicate stormwater samples were collected during each of the initial stormwater compliance sampling events. In general, the RPD for detected analytes was below 50 percent. Therefore, the samples are considered representative of the environmental conditions at the subject property and the results confirm the laboratory precision is acceptable.

9.0 SOURCE CONTROL EVALUATION

The following sections summarize the lines of evidence used to support our opinion that the stormwater source control at the subject property is adequate and that the subject property does not represent a significant past, current, or future source of contamination to the Willamette River. Based on the catalog of stormwater data for the subject property and other lines of evidence, it is our opinion that source control sampling activities completed to date are adequate and further sampling related to the SCE is not warranted. A summary of our data evaluation and lines of evidence supporting our opinion is presented in the following sections.

As referenced previously, NV5 reviewed the analytical data from the catch basin sediment and stormwater sampling activities to evaluate if the concentrations of contaminants were representative of typical industrial sites. The “Tool for Evaluating Stormwater” included in the DEQ guidance was used to gauge the respective concentration ranges for comparison to the data collected at the subject property. Charts are provided in the DEQ tool to evaluate contaminant concentrations at industrial sites in the Portland Harbor area. The concentrations are charted in a curve, which includes a flat portion and a steep portion. The transition area is called the “knee” of the curve. Concentrations within the flat area of the curve are considered typical of industrial sites, while concentrations higher than the knee may represent elevated concentrations. The DEQ tool demonstrates that even constituents up to two orders of magnitude higher than the most conservative EPA Portland Harbor CULs or DEQ JSCS SLVs are well within the typical range of industrial values. Concentrations that are considered “typical” of industrial sites may not necessarily indicate protectiveness within the Portland Harbor study area but are nonetheless considered along with other lines of evidence to support a Source Control Decision.

9.1 CATCH BASIN SEDIMENT

Using the aforementioned DEQ “Tool for Evaluating Stormwater,” our evaluation of stormwater solids (catch basin sediment) sample data generated at the subject property indicate the following:

- With the exception of sediment samples collected from catch basins CB-4 and CB-5 in December 2020 and catch basin CB-5 in December 2021, the detected concentrations of total PCBs fell below the “knee” of the DEQ curve. We note that catch basin CB4 services the sanitary utility.
- Total PAHs were detected in several catch basin sediment samples at concentrations above the “knee” of the DEQ curve, including CB1 (December 2020 and December 2021) CB2 (December 2020 and December 2021), CB3 (December 2020), and CB5 (December 2021). The remaining catch basin sediment sample results plotted below the “knee” of the DEQ curve and fell within the typical range of values for industrial sites.
- BEHP has not been detected in any catch basin sediment samples at concentrations above the “knee” of the curve and therefore reflect the typical range of values for industrial sites.
- With the exception of chromium⁶, mercury⁷, and zinc⁸, total metals were not detected above the “knee” of the respective curves and therefore reflect the typical range of values for industrial sites.

The sediment sampling activities and results presented in this report reflect the condition prior to catch basin replacement activities (Section 7.4.2) completed in May 2022. Specifically, the older catch basins were not amenable to the use of modern replaceable filter inserts and exhibited significant corrosion that could facilitate the intrusion of subgrade material (e.g., site fill particulates). During the period of time when catch basin sediment sampling was completed, the subject property was subject to site improvements that included some subsurface utility work and the construction of a new loading dock area (Figures 5 and 6). The site improvements included temporary exposure of the subgrade (fill) material. We therefore conclude the following:

- It is likely that surface sediments transported by a variety of means (windblown, vehicular traffic associated with site improvements, and related potential exposure of site fill) were deposited on paved surfaces via construction vehicles and subsequently migrated to the interior of the catch basins.
- It is likely that shallow fill material (which contains documented concentrations of PCBs, PAHs, and metals) may have migrated into the older catch basins through holes created by corrosion on the structures.

The catch basin replacement activities were specifically intended to address the possible routes of sediment deposition into the stormwater collection network. At the time of the May 2022 stormwater sampling activities, only trace amounts of sediment were observed in the bottom of the new catch basins. The presence of replaceable filters in the new catch basins indicates that future sediment loading into the stormwater collection and conveyance system will be significantly reduced in the future, and frequent filter servicing will help minimize exposure of stormwater to accumulated solids on the filter inserts. These measures are expected to improve stormwater quality at the subject property.

⁶ Including CB1 (December 2021), CB4 (December 2020) and CB5 (December 2021)

⁷ Including CB2 (December 2021), and CB4 (December 2020)

⁸ Including CB5 (December 2020 and December 2021)

9.2 STORMWATER

Using the aforementioned DEQ “Tool for Evaluating Stormwater,” our evaluation of stormwater sample data generated at the subject property, including the results of stormwater sampling following stormwater system cleaning and upgrades/replacements, indicate the following:

- Total PCBs, BEHP, total metals (arsenic, cadmium, chromium, mercury, and zinc), and TSS were not detected in any of the initial or supplemental compliance stormwater samples at concentrations above the typical range of values for industrial stormwater.
- Total PAHs were detected in the initial (April 2021 and May 2021) stormwater compliance samples collected at cleanouts SW-1 and SW-2 at concentrations above the “knee” of the DEQ curve. However, following catch basin replacement activities, total PAHs were not detected above the “knee” of the curve, which generally reflects improvement from this measure.

Constituents detected at concentrations greater than the EPA Portland Harbor CULs/DEQ JSCS SLVs are sometimes associated with particulate deposition from wind-blown dust and/or vehicles, which may be an intermittent source to subject property stormwater. The detected and calculated concentrations of 2,3,7,8-TCDD TEQ are an example of this possibility, as an historical or current source of this group of compounds has not been identified and it is highly unlikely that an on-site source of these constituents is present at the subject property connected to current or historical site operations.

Although the measured values of TSS in stormwater samples collected in May 2022 (following catch basin replacements) were within the typical range of values for industrial stormwater, those values were elevated in comparison to preceding stormwater sampling events that reflected catch basins in deteriorated condition with ill-fitting filters. The May 2022 stormwater sampling activities were conducted relatively soon after the catch basin replacement activities and although care was taken in re-plumbing the new catch basins to the existing stormwater conveyance lines, it is possible that minor amounts of debris (including site fill) may have been introduced to the conveyance system, possibly affecting the associated stormwater sample analytical results. We anticipate that this condition, if present, is temporary in nature and the associated TSS concentrations will decrease.

The City of Portland issued a Completion Summary (City of Portland, 2013) for the City of Portland Outfall Basin S-2 (to which the subject property discharges) in December 2013. The report summarizes SCEs for areas within the S-2 basin completed in collaboration with DEQ. The summary relied on a comprehensive analysis (Confluence et.al., 2013) of the hydrodynamics and sediment distribution analyses performed on behalf of the Daimler Trucks North America site in the western portion of the basin⁹, as well as other nearby SCEs completed within the S-2 discharge area of Swan Island Lagoon completed by others (GSI Water Solutions, Inc., 2015). The City of Portland Completion Summary report presented a key finding as follows:

⁹ The Daimler site experienced a fire in 2009 that resulted in contaminant releases to the storm system and may be a potential source of dioxins/furan deposition in the subject property vicinity.

“Evaluation of inriver sediment data did not indicate that the outfall is a significant pathway for contaminants to Swan Island Lagoon. However, given the sensitive nature of the lagoon, the City collected and analyzed basin stormwater data to verify that source tracing was not needed. The City also conducted an inline solids investigation in the basin following a release to the system to confirm that ongoing sources were not present. Three DEQ Cleanup Program sites are located within the basin. There are two operable units (OU) of the shipyard partially in the basin; DEQ issued a source control decision at OU3 and a source control evaluation (SCE) is underway at OU1. DEQ determined that SCE is not needed or is a low priority at the third site.”

The findings presented in the City of Portland Completion Summary Report for Outfall Basin S-2 with regard to a favorable review of inriver sediment data provides another line of evidence that subject property-related discharges of stormwater (even prior to the site improvements and stormwater system upgrades) do not pose an unacceptable risk to the Portland Harbor.

9.3 GROUNDWATER

Based on the information presented in Section 8.1, we consider the groundwater migration pathway (from the subject property to the Willamette River) to be controlled and insignificant for the following reasons:

- There are no active sources of petroleum hydrocarbons or chlorinated solvents at the subject property.
- PCE and/or TCE were detected in groundwater samples collected from borings DP-1, DP-2, DP-3, and DP-14 (advanced in the vicinity of the shop) at concentrations greater than the EPA Portland Harbor CULs and DEQ JSCS SLVs. The detected concentrations of PCE and TCE are highest beneath and adjacent to the shop (at DP-2 and DP-3) and appear to attenuate in the presumed down-gradient (northerly) direction, as evidenced by decreasing PCE and TCE concentrations at the DP-14 groundwater sampling location. Further examination of detected VOC concentrations in groundwater samples collected from borings DP-3 and DP-14 also indicates that reductive dechlorination is occurring to some degree, as evidenced by increasing concentrations of cis-1,2-DCE (a breakdown product of PCE) moving in a northerly direction. In their letter dated January 15, 2021, DEQ stated that *“based on the presence and ratio of PCE daughter products, it appears biological reductive dechlorination is a significant mechanism of contaminant attenuation at the site”* and *“there is insufficient remaining PCE and TCE mass in the vadose and saturated zones in the shop area to sustain a continuous plume and complete pathway to the river”* (DEQ, 2021a). Therefore, PCE and TCE concentrations detected at the subject property do not appear to represent a significant risk to the Portland Harbor.
- Total and dissolved arsenic were detected in groundwater samples DP-1W, DP-2W, DP-3W, DP-14W, DP-15W, DP-17W, and DP-19W at concentrations greater than the EPA Portland Harbor CUL and the DEQ JSCS SLV. However, arsenic is a naturally occurring element and according to a study done by USGS (Hinkle and Polette, 1999), arsenic concentrations in groundwater between 10 and 50 µg/L are widespread in the Willamette Basin. Based on the widespread detections of arsenic in groundwater at the subject property and the referenced

study, the detected concentrations of arsenic are considered representative of background concentrations in the area and do not represent an elevated or unacceptable risk to the Willamette River.

- Total copper and lead were detected in groundwater samples DP-1W and DP-14W at concentrations greater than the EPA Portland Harbor CULs and the DEQ JSCS SLVs. However, dissolved copper and lead were not detected in groundwater samples DP-1W and DP-14W at concentrations greater than the EPA Portland Harbor CULs and the DEQ JSCS SLVs. It appears that the total detected concentrations of copper and lead are likely associated with suspended solids in the samples and do not represent an unacceptable risk to the Willamette River.
- Benzyl alcohol was detected in groundwater sample DP-2W at concentrations greater than the DEQ JSCS SLV but was not detected in the down-gradient or up-gradient groundwater samples at concentrations greater than the DEQ JSCS SLV. Therefore, it appears that the detected concentration is localized and does not represent a significant risk to the Portland Harbor.
- Facilitated transport of groundwater in stormwater conveyance lines is considered a low likelihood because the on-site conveyance laterals are located approximately 17 feet above the seasonal high groundwater table.
- In their letter dated January 15, 2021, DEQ stated that “*groundwater contamination is adequately controlled on the site with respect to the Portland Harbor*” (DEQ, 2021a).

10.0 FINDINGS AND CONCLUSIONS

NV5 has conducted SCE activities (including groundwater sampling, stormwater conveyance line cleaning/upgrades, and sediment and stormwater sampling) at the subject property located at 5001 North Lagoon Avenue in Portland, Oregon. These activities were performed in accordance with DEQ’s *Guidance for Evaluating the Stormwater Pathway at Upland Sites*, dated January 2009 and updated October 2010; DEQ/EPA’s *Portland Harbor Joint Source Control Strategy*, dated December 2005; the *EPA Record of Decision, Portland Harbor Superfund Site*, dated January 2017; and DEQ-approved work plans. The results of the SCE activities indicate the following:

1. Existing and potential facility-related contaminant sources have been identified and characterized:
 - a. The potential sources to impact river sediments are (1) potentially impacted soil associated with fill and/or former USTs, (2) sediments in the stormwater conveyance system, (3) COPC in stormwater, and (4) COPCs in groundwater. Each potential source has been fully characterized by investigations performed pursuant to DEQ-approved work plans.
 - i. Soil has been characterized through numerous phases of subsurface investigation.

- ii. Camera surveys did not reveal significant sediments, and conveyance line cleaning (flushing) activities and associated catch basin replacement activities removed potential stormwater solids. The cleaned condition has been characterized by multiple rounds of compliance stormwater sampling (including first-flush sampling).
 - iii. Groundwater has been characterized by samples collected from a series of grab samples.
 - b. Substances detected and the basis for determining that all sources have been identified and characterized are as follows:
 - i. Sediment sample results indicate some metals, tributyltin, PCBs, phthalates, PAHs, and dioxins/furans were detected at concentrations exceeding EPA Portland Harbor CULs and/or DEQ JSCS SLVS. The initial catch basin sediment sampling was conducted when the basins contained significant amounts of sediment at the time of sampling and likely represented “worst case” conditions. The second round of catch basin sediment sampling was conducted prior to catch basin replacement activities, and it was determined that the former catch basins were significantly corroded, potentially allowing the intrusion of site fill material. The catch basins and conveyance lines were subsequently cleaned, and the catch basins were replaced with modern structures fitted with replaceable filter inserts. As a result, the legacy sediment was removed, and future sediment buildup is expected to be significantly diminished as a result of these measures
 - ii. Stormwater sample results indicate metals, PCBs, PAHs, chloromethane, and dioxins/furans were detected at concentrations exceeding the most conservative EPA Portland Harbor CULs or DEQ JSCS SLVs. However, none of these contaminants has been detected at concentrations exceeding “typical industrial stormwater concentrations” per DEQ’s “Tool for Evaluating Stormwater Data.”
 - iii. Groundwater sample results indicate PCE and TCE were detected in groundwater samples collected from beneath the shop at concentrations greater than the EPA Portland Harbor CULs. However, the detected concentrations of PCE and TCE are expected to quickly attenuate to below the DEQ JSCS SLV and EPA Portland Harbor CUL, and the presence of daughter compounds reflects ongoing reductive dechlorination. DEQ concurred that groundwater contamination is adequately controlled at the subject property (DEQ, 2021a). The groundwater-to-surface water pathway is considered controlled and insignificant for the migration of contaminants to the Willamette River.
- 2. Potential stormwater contaminant sources are being controlled to the extent feasible:
 - a. Particulate matter on paved surfaces (which cover the entire subject property with the exception of some small, landscaped areas) is controlled by regular site sweeping and the housekeeping practices described herein.
 - b. Catch basin sediments are controlled by the presence of catch basin filter inserts, catch basin cleanouts, and frequent maintenance.

- c. Stormwater is managed by completing the above-mentioned BMPs. Groundwater sources have been delineated and successfully remediated.
- 3. Post-conveyance line cleaning stormwater sample data support the conclusion that source control measures and BMPs are effective:
 - a. Stormwater COPCs and TSS quantified during the post-cleaning stormwater sampling program demonstrate consistency with typical Portland Harbor stormwater concentrations.
- 4. Historical and current stormwater discharges from the subject property have not resulted in unacceptable risk to the Portland Harbor.
 - a. The City of Portland issued a Completion Summary (City of Portland, 2013) for the City of Portland Outfall Basin S-2 (to which the subject property discharges) in December 2013. In that report, the City of Portland stated that *“Evaluation of inriver sediment data did not indicate that the outfall is a significant pathway for contaminants to Swan Island Lagoon.”*
 - b. The findings presented in the City of Portland Completion Summary Report for Outfall Basin S-2 with regard to a favorable review of inriver sediment data provides another line of evidence that subject property-related discharges of stormwater (even prior to the site improvements and stormwater system upgrades) do not pose an unacceptable risk to the Portland Harbor.

Based on the multiple lines of evidence provided herein, we request that DEQ issue a Source Control Decision finding that (1) the subject property has been adequately characterized, sources and pathways for mobilization of contaminants have been addressed, and sufficient investigation has been performed to confirm that contaminants are not leaving the subject property at levels presenting unacceptable risk and (2) the subject property is eligible for a determination that it is not a past, current, or reasonably likely future source of contamination to the Willamette River and that additional source control measures are not required.

11.0 LIMITATIONS

This report has been prepared for the Oregon Department of Environmental Quality, on behalf of BCS America LLC. This report is not intended for use by others, and the information contained herein is not applicable to other sites. Reliance by other parties must be approved by NV5 in accordance with our standard contractual process for third-party reliance. Our interpretations are based on data from select samples collected by NV5 and others. The results of the analyses only indicate the presence or absence of those chemical constituents analyzed in those sample locations. The conclusions presented in this report are based on our observations made during field investigations and chemical analytical data. The findings of this assessment should be considered as a professional opinion based on our evaluation of select and limited data.

Our services have been executed in accordance with the generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

◆ ◆ ◆

Please call if you have questions concerning the information provided.

Sincerely,

NV5



Erik A. Hedberg, P.E., C.W.R.E.
Associate Engineer



Mike F. Coenen, P.E.
Principal Engineer



REFERENCES

Confluence Environmental Company, Coast & Harbor Engineering, and Pacific Groundwater Group, 2013. *Swan Island Basin Hydrodynamic and Stormwater Solids Fate and Transport Analysis*, dated September 9, 2013.

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DEQ, 2021b. DEQ Review “Draft Source Control Evaluation,” *Auto-Vending, ECSI File No. 1430*, dated November 10, 2021.

GeoDesign, Inc., 2020. *Work Plan; Supplemental Limited Site Investigation; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; ECSI No. 1430*, dated May 19, 2020. GeoDesign Project: BCSAmerica-1-01-03

GeoDesign, Inc., 2021a. *Revised Work Plan; Stormwater Conveyance System Sampling; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; ECSI No. 1430*, dated January 5, 2021. GeoDesign Project: BCSAmerica-1-02

GeoDesign, Inc., 2021b. *Stormwater Conveyance System Cleaning and Scoping; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; ECSI File No. 1430*, date February 12, 2021. GeoDesign Project: BCSAmerica-1-02

GeoDesign, Inc., 2021c. *Catch Basin Sediment Sampling; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; ECSI No. 1430*, dated February 19, 2021. Project: BCSAmerica-1-02

GeoDesign, Inc., 2021d. *Work Plan; Stormwater Conveyance System Sampling – Stormwater; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; ECSI No. 1430*, dated February 23, 2021. Project: BCSAmerica-1-02

GeoDesign, Inc., 2021e. *Source Control Evaluation – Groundwater; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; DEQ ECSI No. 1430*, dated April 26, 2021. Project: BCSAmerica-1-01-03

GeoDesign, Inc., 2021f. *Contaminated Media Management Plan; Former Automatic Vending Company; 5001 North Lagoon Avenue; Portland, Oregon; ECSI No. 1430*, dated May 27, 2021. Project: BCSAmerica-1-02

GSI Water Solutions, Inc., 2015. *Revised Preliminary Assessment/Source Control Evaluation; End of Swan Island Lagoon; City of Portland Property; Portland, Oregon; ECSI #3901*, dated April 2015.

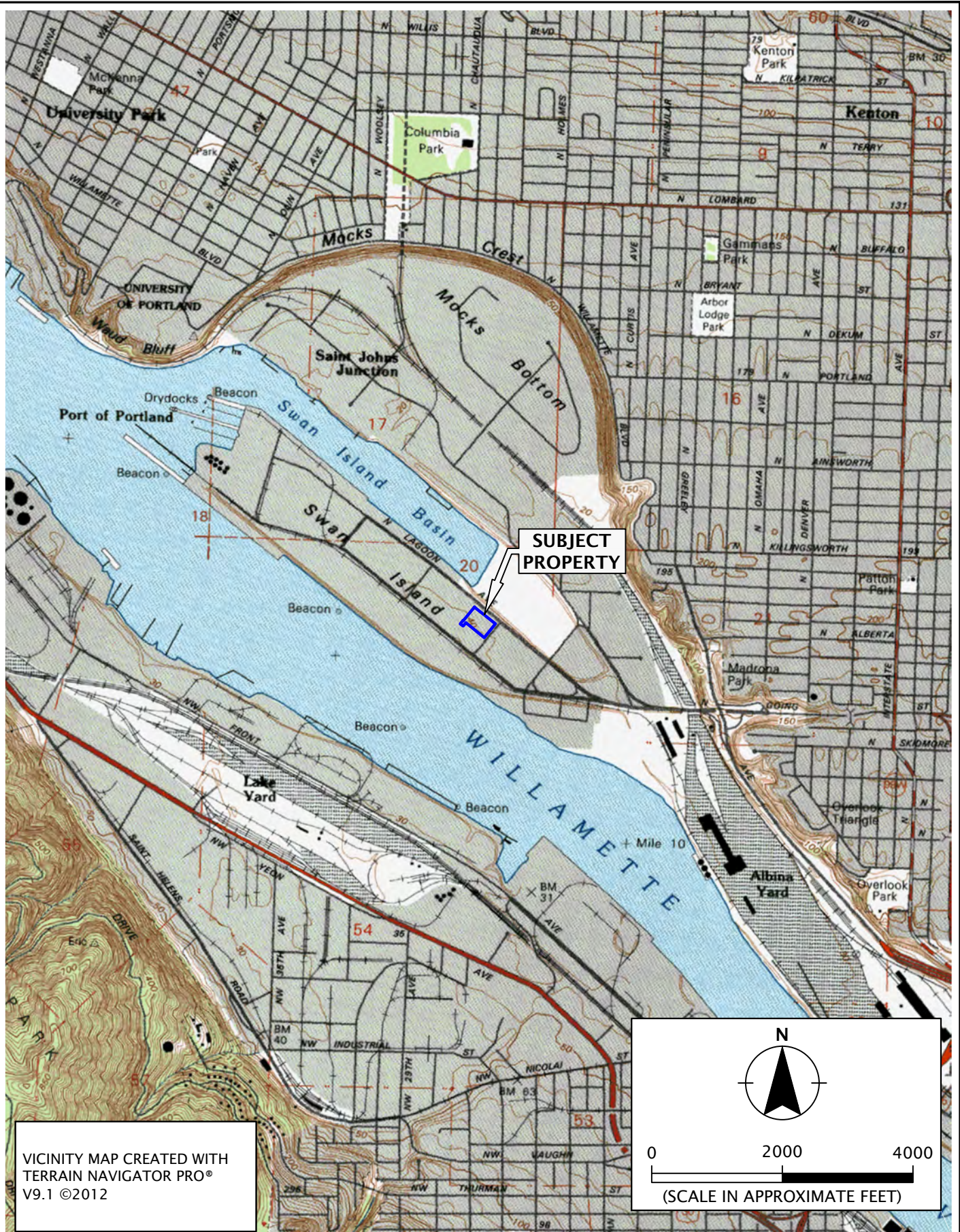
Hinkle, Stephen R. and Polette, Danial J., 2019. *Arsenic in Ground Water of the Willamette Basin, Oregon*, dated 1999.

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FIGURES



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BCSAMERICA-1-02

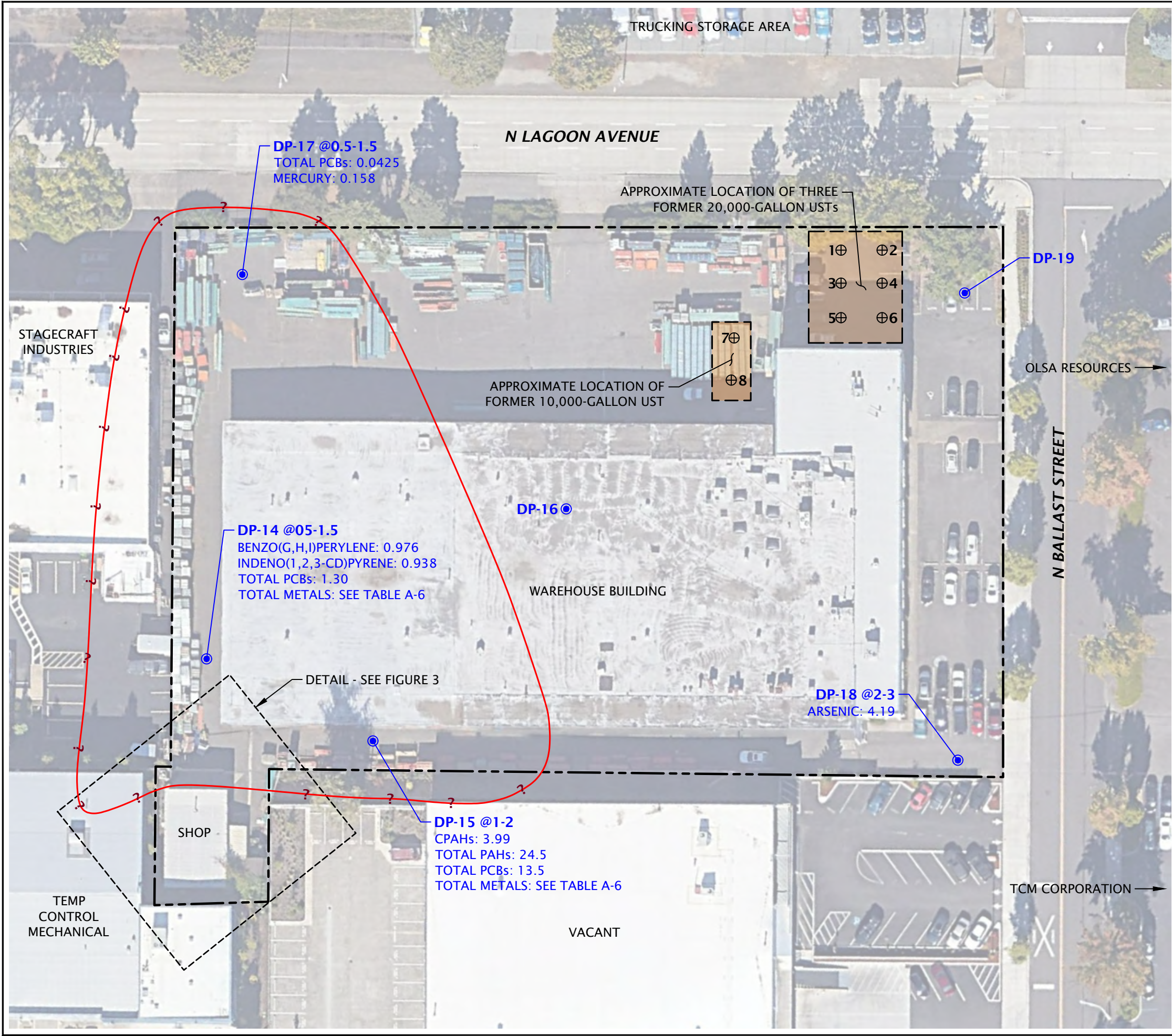
SEPTEMBER 2022

VICINITY MAP

FORMER AUTOMATIC VENDING COMPANY
 PORTLAND, OR

FIGURE 1

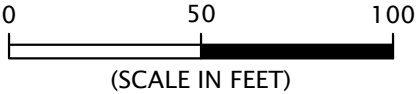
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LEGEND:

- SUBJECT PROPERTY BOUNDARY
- DP-14 ● DIRECT-PUSH BORING (GEODESIGN, 2020)
- 1⊕ CONFIRMATION SOIL SAMPLE (PEMCO, 1991)
- DETAIL AREA (SEE FIGURE 3)
- ESTIMATED EXTENT OF IMPACTED FILL MATERIAL

CONCENTRATIONS EXCEEDING PORTLAND HARBOR CULS AND DEQ JSCS SLVS ARE SHOWN. CONCENTRATIONS IN MG/KG.



SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, FEBRUARY 28, 2020

SOIL CONCENTRATIONS		FIGURE 2
BCSAMERICA-1-02	FORMER AUTOMATIC VENDING COMPANY PORTLAND, OR	
	SEPTEMBER 2022	



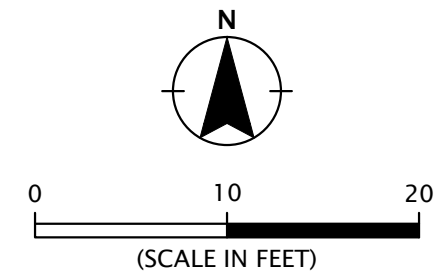
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LEGEND:

- DP-1** DIRECT-PUSH BORING (GEODESIGN, 2019)
- B-1** BORING (PEMCO, 1992)
- B-1** BORING (K&S ENVIRONMENTAL, 2019)
- C1** CONFIRMATION SOIL SAMPLE (K&S ENVIRONMENTAL, 2019)
- 1** CONFIRMATION SOIL SAMPLE (PEMCO, NOVEMBER 1991)
- 1** CONFIRMATION SOIL SAMPLE (PEMCO, OCTOBER 1991)
- UST REMEDIAL EXCAVATION (1991)
- HYDRAULIC HOIST REMEDIAL EXCAVATION (2019)
- CATCH BASIN

CONCENTRATIONS EXCEEDING PORTLAND HARBOR CULS AND DEQ JSCS SLVS ARE SHOWN. CONCENTRATIONS IN MG/KG.



SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, FEBRUARY 28, 2020

NIV5

BCSAMERICA-1-02

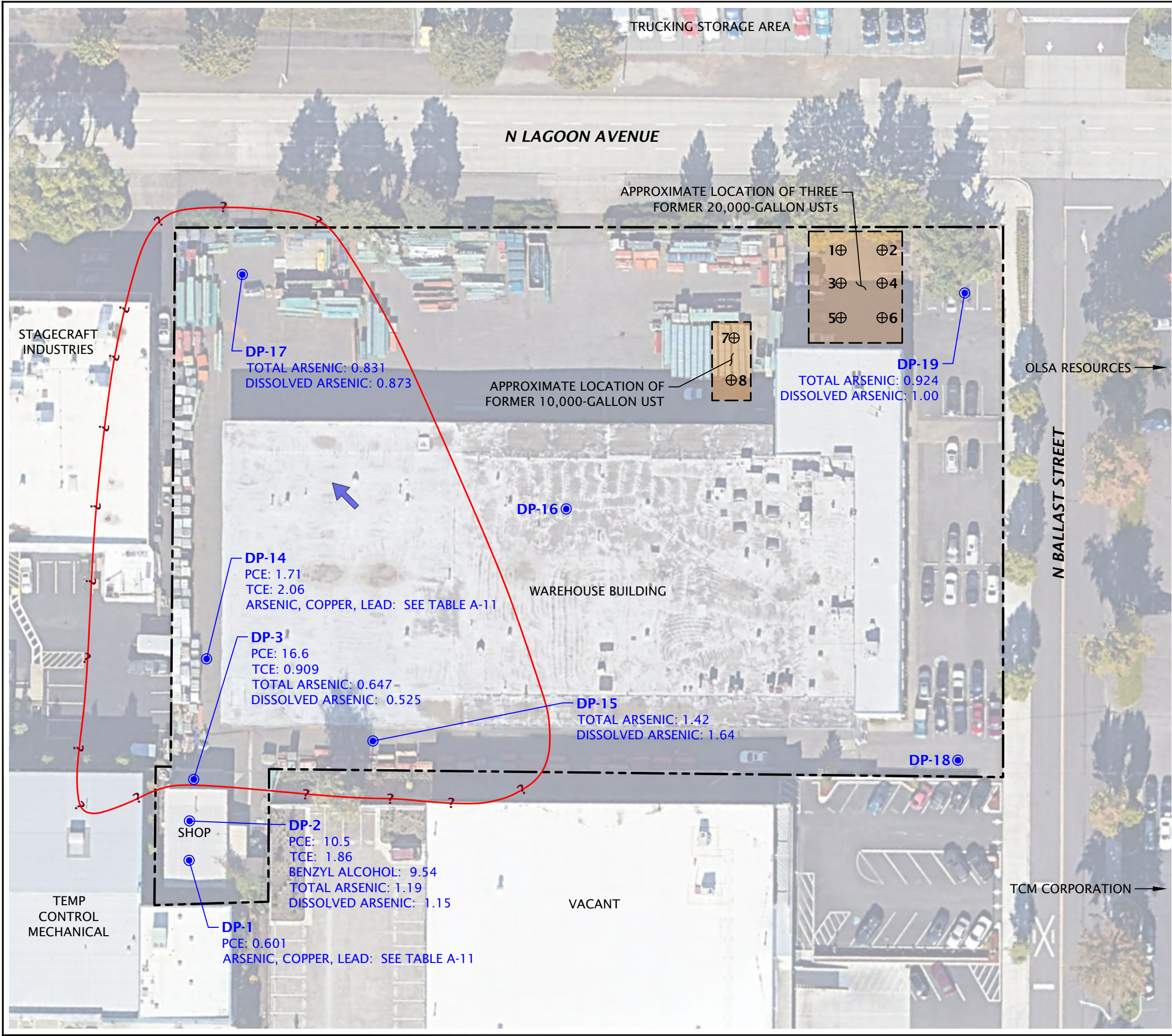
SEPTEMBER 2022

SOIL CONCENTRATIONS - SHOP DETAIL

FORMER AUTOMATIC VENDING COMPANY
PORTLAND, OR

FIGURE 3

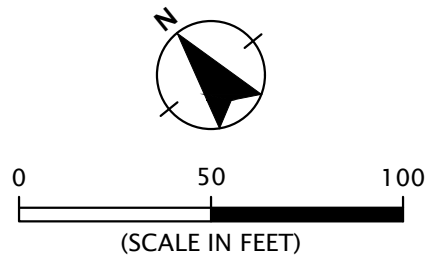
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LEGEND:

- SUBJECT PROPERTY BOUNDARY
- DP-14 DIRECT-PUSH BORING (GEODESIGN, 2020)
- 1⊕ CONFIRMATION SOIL SAMPLE (PEMCO, 1991)
- ESTIMATED EXTENT OF IMPACTED FILL MATERIAL
- ← INFERRED DIRECTION OF GROUNDWATER FLOW

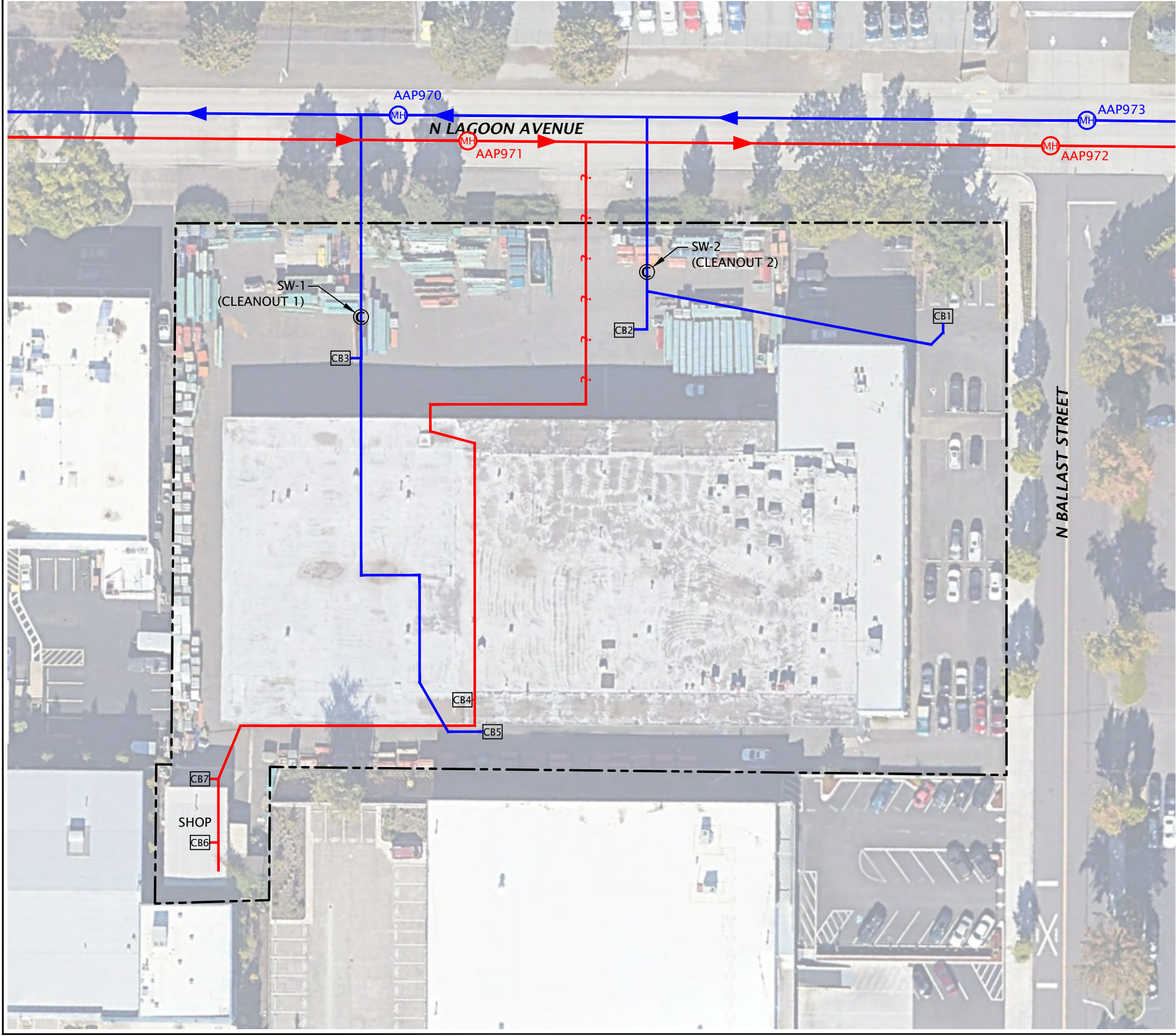
CONCENTRATIONS EXCEEDING PORTLAND HARBOR CULS AND DEQ JSCS SLVS ARE SHOWN. CONCENTRATIONS IN $\mu\text{G/L}$.



SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, FEBRUARY 28, 2020

GROUNDWATER CONCENTRATIONS	FIGURE 4
	FORMER AUTOMATIC VENDING COMPANY PORTLAND, OR
BCSAMERICA-1-02	SEPTEMBER 2022
NIV5	

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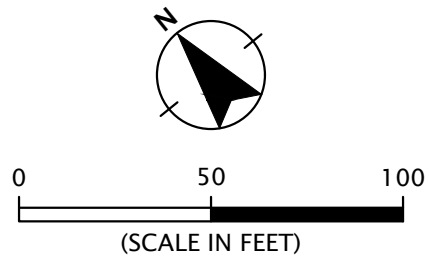


LEGEND:

- SUBJECT PROPERTY BOUNDARY
 - STORM LINE (FLOW DIRECTION SHOWN)
 - SANITARY LINE (FLOW DIRECTION SHOWN)
 - CATCH BASIN
 - CLEANOUT (INSTALLED JANUARY 2021)
 - MANHOLE
- AAP970 MANHOLE

NOTE:

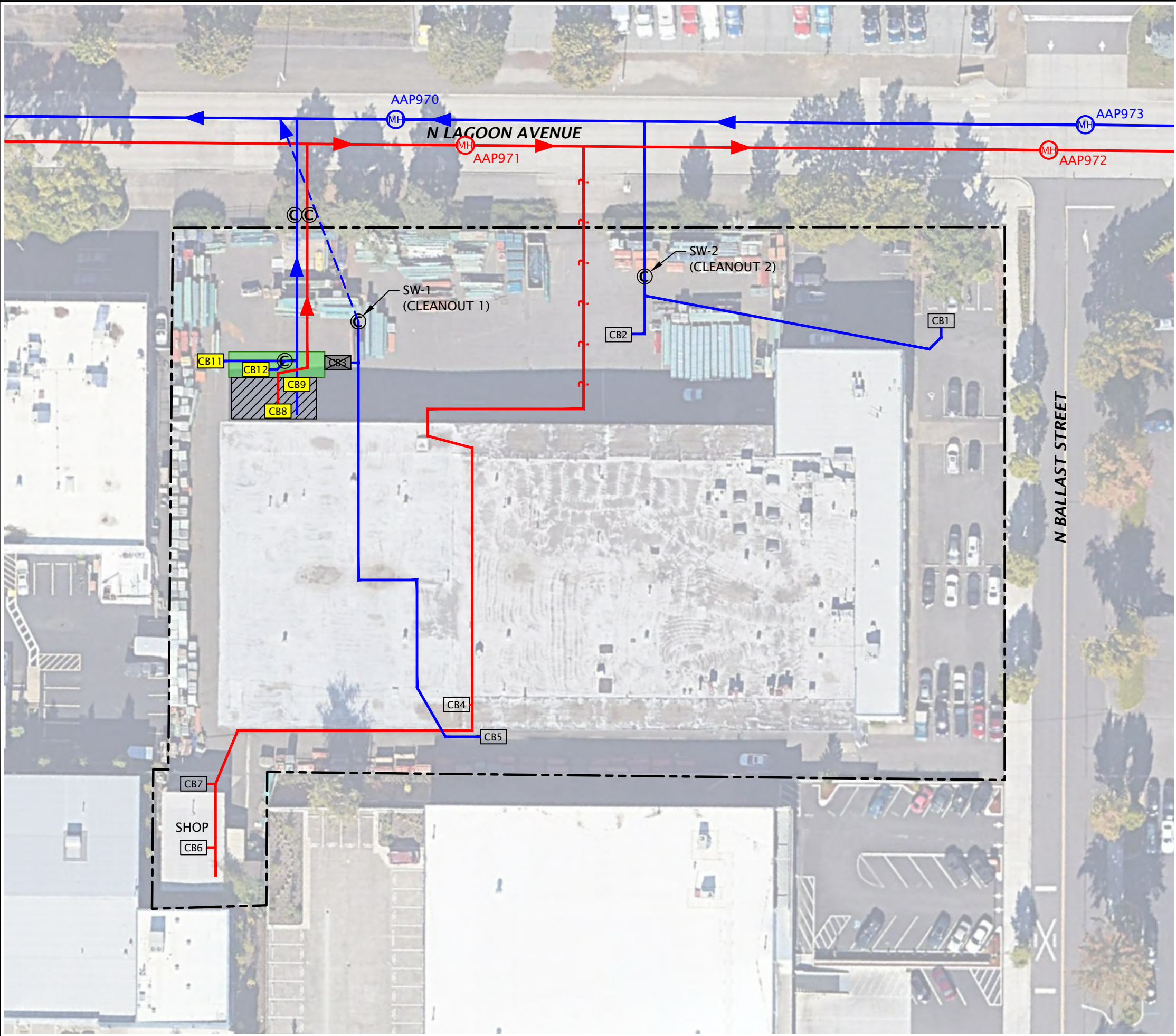
QUESTION MARKS DENOTE PORTIONS OF THE LINE THAT COULD NOT BE SCOPED.



SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, FEBRUARY 28, 2020

	STORMWATER CONVEYANCE SYSTEM - ORIGINAL	
	BCSAMERICA-1-02	FORMER AUTOMATIC VENDING COMPANY PORTLAND, OR
	SEPTEMBER 2022	FIGURE 5

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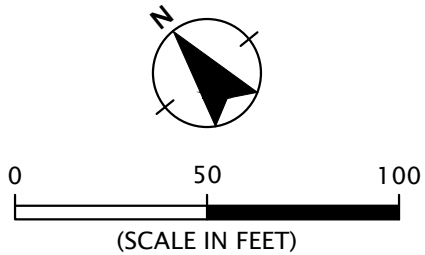


LEGEND:

- SUBJECT PROPERTY BOUNDARY
- STORM LINE (FLOW DIRECTION SHOWN)
- CONCRETE STORM LINE (FLOW DIRECTION SHOWN)
- SANITARY LINE (FLOW DIRECTION SHOWN)
- CATCH BASIN
- CATCH BASIN REMOVED IN 2022
- CLEANOUT (INSTALLED JANUARY 2021)
- AAP970 MH MANHOLE
- CB8 NEW CATCH BASIN
- NEW VEGETATED SWALE
- NEW LOADING DOCK

NOTE:

QUESTION MARKS DENOTE PORTIONS OF THE LINE THAT COULD NOT BE SCOPED.



SITE PLAN BASED ON AERIAL PHOTOGRAPH
OBTAINED FROM GOOGLE EARTH PRO®,
FEBRUARY 28, 2020

TABLES

TABLE 1
Summary of Sediment Sample Chemical Analytical Results
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Analyte	Portland Harbor CULs ¹ (µg/kg)	JSCS SLVs ² (µg/kg)	CB-1 (µg/kg)		CB-2 (µg/kg)		CB-3 (µg/kg)	CB-4 (µg/kg)	CB-5 (µg/kg)		CB-6 (µg/kg)	CB-7 (µg/kg)
Sample Date			12/17/20	12/14/21	12/17/20	12/16/21	12/17/20	12/17/20	12/17/20	12/14/21	12/17/20	12/17/20
Petroleum Hydrocarbons												
Gasoline-Range Hydrocarbons	NE	NE	33,200	–	10,100 J	–	56,000 U	14,200 U	11,600 U	--	31,100	83,900 U
Diesel-Range Hydrocarbons	91,000	NE	49,900 U	524,000 U	97,800 U	957,000 U	96,100 U	495,000 U	97,600 U	1,590,000 U	97,300 U	49,600 U
Oil-Range Hydrocarbons	NE	NE	1,960,000	5,610,000	3,120,000	5,910,000	3,200,000	4,780,000	3,450,000	24,300,000	2,480,000	2,590,000
Metals/Inorganics												
Antimony	NE	64,000	956 J	4,220 J	1,070	2,400	1,030	2,710 Q-42	2,230	2,650 J	593 J	1,280
Arsenic	3,000	7,000	1,590	4,780 J	3,650	4,530	1,770	3,890	1,780	4,630	2,300	4,270
Beryllium	NE	NE	101 U	535 U	100 U	291 J	100 U	106 U	104 U	308.0 U	108 U	104 U
Cadmium	510	1,000	265	754 J	1,180	872	239	2,490	1,180	1,280	1,240	1,150
Chromium, total	NE	111,000	30,400	127,000	27,600	49,600	29,500	276,000 Q-42	41,200	119,000	16,700	34,400
Copper	359,000	149,000	41,000	171,000	87,800	97,400	51,600	153,000	107,000	160,000	92,000	244,000
Lead	196,000	17,000	19,000	42,000	29,000	65,200	46,900	67,500	71,800	107,000	30,800	24,000
Mercury	85	70	40.2 U	214 U	40.1 U	343	53.1 J	416	148	249	84.3 J	197
Nickel	NE	48,600	13,800	37,900	22,300	21,000	12,000	33,800	21,200	53,300	17,500	62,900
Selenium	NE	2,000	503 U	2,670 U	501 U	965 U	500 U	547 U	520 U	1,540 U	538 U	519 U
Silver	NE	5,000	101 U	535 U	100 U	205 J	148 J	333	273	350 J	183 J	175 J
Zinc	459,000	459,000	224,000	536,000	383,000	549,000	5,860,000	661,000	1,620,000	1,600,000	253,000	1,050,000
Butyltins												
Monobutyltin	NE	NE	4.1 U	–	1.9 U	–	2.3 U	5.1 U	4.2 U	--	4.0 U	3.4 U
Dibutyltin	NE	NE	29	–	9.7	–	1.2 U	5.1 U	4.2 U	--	4.0 U	3.4 U
Tributyltin	3,080	2.3	23	–	2.0 U	–	2.5 U	5.5 U	4.5 U	--	4.3 U	3.7 U
Tetrabutyltin	NE	NE	2.2 U	–	1.0 U	–	1.2 U	2.8 U	2.2 U	--	2.2 U	1.8 U
PCBs Aroclors												
Aroclor 1016	NE	530	9.13 U	10.2 U	8.47 U	18.7 U	8.16 U	9.26 U	96.2 U	31.1 U	19.6 U	9.66 U
Aroclor 1221	NE	NE	9.13 U	10.2 U	8.47 U	18.7 U	8.16 U	9.26 U	96.2 U	31.1 U	19.6 U	19.3 U
Aroclor 1232	NE	NE	18.3 U	10.2 U	16.9 U	18.7 U	8.16 U	9.26 U	96.2 U	31.1 U	60.4 U	19.3 U
Aroclor 1242	NE	NE	9.13 U	10.2 U	8.47 U	38.2	111 P-12	32.8 P-12	96.2 U	31.1 U	19.6 U	9.66 U
Aroclor 1248	NE	1,500	9.13 U	10.2 U	8.47 U	18.7 U	8.16 U	9.26 U	96.2 U	31.1 U	19.6 U	19.3 U
Aroclor 1254	NE	300	9.13 U	11.6 J	12.4 J	91.9	45.6 P-12	311 P-12	1,480	194	40.0 P-12	53.1 P-12
Aroclor 1260	NE	200	9.13 U	10.2 U	15.2 J	39.7	23.6 P-12	43.3 P-12	96.2 U	55.1	21.7 P-12	50.2 P-12
Total PCBs												
0	9	0.39	0 U	11.6	27.6	170	180	387	1,480	249	61.7	103
1/2DL			36.5 U	42.2	53.0	207	197	406	1,769	327	131	142
DL			73.1 U	72.8	78.4	245	213	424	2,057	405	201	181

TABLE 1
Summary of Sediment Sample Chemical Analytical Results
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Analyte	Portland Harbor CULs ¹ (µg/kg)	JSCS SLVs ² (µg/kg)	CB-1 (µg/kg)		CB-2 (µg/kg)		CB-3 (µg/kg)	CB-4 (µg/kg)	CB-5 (µg/kg)		CB-6 (µg/kg)	CB-7 (µg/kg)
Sample Date			12/17/20	12/14/21	12/17/20	12/16/21	12/17/20	12/17/20	12/17/20	12/14/21	12/17/20	12/17/20
Chlorinated Herbicides												
Dalapon	NE	NE	230 U	--	110 U	--	130 U	260 U	230 U	--	230 U	180 U
Dicamba	NE	NE	15 U	--	6.9 U	--	8.2 U	17 U	15 U	--	15 U	12 U
MCPA	NE	NE	33,000 U	--	15,000 U	--	18,000 U	38,000 U	33,000 U	--	33,000 U	26,000 U
Dichlorprop	NE	NE	150 U	--	72 U	--	85 U	180 U	150 U	--	150 U	120 U
2,4-D	NE	NE	150 U	--	71 U	--	84 U	180 U	150 U	--	150 U	120 U
2,4,5-TP (Silvex)	NE	NE	11 U	--	15 J	--	9 J, P	25 J	11 U	--	11 U	9.1 U
2,4,5-T	NE	NE	12 U	--	5.4 U	--	6.4 U	13 U	12 U	--	12 U	9.2 U
2,4-DB	NE	NE	150 U	--	68 U	--	81 U	170 U	150 U	--	150 U	120 U
Dinoseb	NE	NE	60 U	--	28 U	--	33 U	70 U	60 U	--	60 U	48 U
MCPP	NE	NE	21,000 U	--	9,700 U	--	11,000 U	24,000 U	21,000 U	--	21,000 U	16,000 U
Organochlorine Pesticides												
α - BHC	NE	NE	16.5 U	--	7.84 U	--	9.30 U	9.62 U	9.80 U	--	4.72 U	4.33 U
β - BHC	NE	NE	16.5 U	--	7.84 U	--	9.30 U	9.62 U	28.40 U	--	13.7 U	8.66 U
γ - BHC (Lindane)	5	4.99	16.5 U	--	7.84 U	--	9.30 U	9.62 U	9.80 U	--	4.72 U	4.33 U
δ - BHC	NE	NE	16.5 U	--	7.84 U	--	9.30 U	9.62 U	9.80 U	--	9.43 U	4.33 U
Heptachlor	NE	10	16.5 U	--	7.84 U	--	9.30 U	9.62 U	9.80 U	--	4.72 U	4.33 U
Heptachlor epoxide	NE	16	16.5 U	--	7.84 U	--	9.30 U	9.62 U	9.80 U	--	9.43 U	4.33 U
Aldrin	2	40	16.5 U	--	7.84 U	--	9.30 U	9.62 U	9.80 U	--	9.43 U	4.33 U
Chlordane	NE	0.37	496 U	--	235 U	--	279 U	288 U	294 U	--	142 U	130 U
Endosulfan I	NE	NE	16.5 U	--	7.84 U	--	9.3 U	9.62 U	9.80 U	--	4.72 U	4.33 U
Endosulfan II	NE	NE	16.5 U	--	7.84 U	--	9.3 U	9.62 U	9.80 U	--	4.72 U	4.33 U
Endosulfan sulfate	NE	NE	16.5 U	--	7.84 U	--	9.3 U	9.62 U	9.80 U	--	4.72 U	4.33 U
DDE	226	0.33	16.5 U	--	7.84 U	--	9.30 U	9.62 U	19.60 U	--	9.43 U	4.33 U
DDD	114	0.33	47.9 U	--	15.7 U	--	9.30 U	9.62 U	9.80 U	--	4.72 U	4.33 U
DDT	246	0.33	33.1 U	--	7.84 U	--	9.30 U	19.2 U	50.0 U	--	9.43 U	8.66 U
DDT - total (DDE+DDD+DDT)	NE	0.33	97.5 U	--	31.4 U	--	27.9 U	38.4 U	79.4 U	--	23.6 U	17.3 U
Dieldrin	0.007	0.0081	16.5 U	--	7.84 U	--	9.30 U	9.62 U	19.6 U	--	4.72 U	4.33 U
Endrin	NE	207	16.5 U	--	7.84 U	--	9.30 U	19.2 U	9.80 U	--	4.73 U	4.33 U
Endrin aldehyde	NE	NE	33.1 U	--	15.7 U	--	9.30 U	9.62 U	9.80 U	--	4.82 U	4.33 U
Endrin ketone	NE	NE	33.1 U	--	15.7 U	--	9.3 U	9.62 U	9.8 U	--	4.72 U	4.33 U
Methoxychlor	NE	NE	49.6 U	--	23.5 U	--	27.9 U	28.8 U	29.4 U	--	14.2 U	13.0 U
Toxaphene	NE	NE	496 U	--	235 U	--	279 U	288 U	294 U	--	142 U	130 U

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Former Automatic Vending Company
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Portland, Oregon

Analyte	Portland Harbor CULs ¹ (µg/kg)	JSCS SLVs ² (µg/kg)	CB-1 (µg/kg)		CB-2 (µg/kg)		CB-3 (µg/kg)	CB-4 (µg/kg)	CB-5 (µg/kg)		CB-6 (µg/kg)	CB-7 (µg/kg)
Sample Date			12/17/20	12/14/21	12/17/20	12/16/21	12/17/20	12/17/20	12/17/20	12/14/21	12/17/20	12/17/20
VOCs ³												
4-Isopropyltoluene	NE	NE	448	--	76.3 J	--	56.0	142 U	116 U	--	377	83.9 U
1,2,4-TMB	NE	NE	144 U	--	160	--	56.0 U	142 U	116 U	--	552	122
1,3,5-TMB	NE	NE	144 U	--	86.1	--	56.0 U	142 U	116 U	--	194	83.9 U
m,p-Xylene	NE	NE	144 U	--	70.6 U	--	56.0 U	142 U	116 U	--	220 J	83.9 U
o-Xylene	NE	NE	71.8 U	--	35.3 J	--	28.0 U	70.8 U	57.8 U	--	111 J	41.9 U
Toluene	NE	NE	207	--	110 J	--	56.0 U	142 U	116 U	--	552	122 J
Vinyl Chloride	NE	NE	71.8 U	--	35.3 U	--	28.0 U	70.8 U	57.8 U	--	71.4 U	41.9 U
Organonitrogen Compounds												
Carbazole	NE	1,600	5,290 U	4,150	1,240 U	531 J	1,300 U	685 U	593 U	1,240 U	531 U	517 U
Oxygen-Containing Compounds												
Dibenzofuran	NE	NE	937 U	361 J	828 U	254 U	867 U	455 U	394 U	827 U	353 U	344 U
Phthalate Esters												
Dimethylphthalate	NE	NE	9,370 U	2,780 U	8,280 U	2,540 U	8,670 U	4,550 U	3,840 U	8,270 U	3,530 U	3,440 U
Di-n-butylphthalate	NE	60	9,370 U	2,780 U	8,280 U	2,540 U	8,670 U	4,550 U	3,840 U	8,270 U	3,530 U	3,440 U
Butylbenzylphthalate	NE	NE	9,370 U	2,780 U	8,280 U	2,540 U	8,670 U	4,550 U	3,840 U	8,270 U	3,530 U	3,440 U
Di-n-octylphthalate	NE	NE	9,370 U	2,780 U	8,280 U	2,540 U	8,670 U	4,550 U	3,840 U	8,270 U	3,530 U	3,440 U
bis(2-Ethylhexyl)phthalate	135	330	14,100 U	4,180 U	12,400 U	9,250	13,000 U	10,300 J	6,940 J	12,400 U	13,600	12,900
PAHs												
Naphthalene ⁴	NE	561	336 J	558 U	154 J	509 U	112 U	283 U	231 U	1,660 U	286 J	168 J
2-Methylnaphthalene	NE	200	1,880 U	558 U	1,660 U	509 U	1,740 U	914 U	732 U	1,660 U	709 U	691 U
Acenaphthylene	NE	200	937 U	278 U	828 U	254 U	867 U	455 U	394 U	827 U	353 U	344 U
Acenaphthene	NE	300	957 J, Q-42	387 J	828 U	254 U	867 U	455 U	394 U	827 U	353 U	344 U
Fluorene	NE	536	937 U	412 J	828 U	254 U	867 U	455 U	394 U	827 U	353 U	344 U
Phenanthrene	NE	1,170	17,200	11,500	2,490	1,830	1,620	687 J	649 J	1,130 J	353 U	344 U
Anthracene	NE	845	3,070	1,780	828 U	351	867 U	455 U	394 U	827 U	353 U	344 U
Fluoranthene	NE	2,230	41,200	28,400	7,240	3,970	3,910	1,320	1,320	2,140 J	353 U	344 U
Pyrene	NE	1,520	37,400	26,200	6,710	3,770	3,620	1,410	1,430	2,460	353 U	344 U
Benzo(a)anthracene	NE	1,050	14,400	10,300	3,650	1,500	1,730 J	572 J	665 J	1,480 J	353 U	344 U
Chrysene	NE	1,290	26,600	17,300	4,640	2,140	2,710	1,080	1,290	2,770	353 U	344 U
Benzo(b)fluoranthene	NE	NE	27,300 M-05	22,800	4,590 M-05	2,410	3,160 M-05	1,400 M-05	1,400 M-05	1,980 J	531 U	517 U
Benzo(k)fluoranthene	NE	13,000	18,600	9,660	3,690 M-05	1,120	2,490 J	1,020 J	954 J	1,240 U	531 U	517 U
Benzo(a)pyrene	NE	1,450	21,400	15,300	4,160	1,880	2,760	1,220 J	665 J	2,230 J	353 U	344 U
Indeno(1,2,3-cd)pyrene	NE	100	21,100	13,300	2,870	1,370	1,740	760 J	647 J	1,010 J	353 U	344 U
Dibenz(a,h)anthracene	NE	1,300	2,900	2,720	828 U	346 J	867 U	384 U	394 U	827 U	353 U	344 U
Benzo(g,h,i)perylene	NE	300	21,100	13,300	2,970	1,360	1,740	580 J	628 J	1,330 J	353 U	344 U

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Portland, Oregon

Analyte	Portland Harbor CULs ¹ (µg/kg)	JSCS SLVs ² (µg/kg)	CB-1 (µg/kg)		CB-2 (µg/kg)		CB-3 (µg/kg)	CB-4 (µg/kg)	CB-5 (µg/kg)		CB-6 (µg/kg)	CB-7 (µg/kg)
Sample Date			12/17/20	12/14/21	12/17/20	12/16/21	12/17/20	12/17/20	12/17/20	12/14/21	12/17/20	12/17/20
cPAHs	774	NE	31,004	22,907	5,656	2,781	3,902	1,661	1,705	3,111	508	495
Total PAHs												
0	23,000	NE	253,563	173,359	42,164	22,047	23,860	9,781	10,203	16,530	286	168
1/2DL			255,440	174,056	45,064	22,937	28,574	11,517	11,700	20,878	3,555	3,353
DL			257,317	174,753	47,964	23,827	33,407	14,167	13,988	25,225	7,533	7,229
Chlorinated Dioxins and Furans												
2,3,7,8,-TCDD (Toxicity Equivalence Quotient)	1.00E-02	NE	4.29E-02	5.71E-02	2.12E-02	1.24E-01	2.61E-02	1.19E-01	9.20E-02	3.91E-01	2.79E-02	2.26E-02
2,3,7,8,-TCDD	2.00E-04	9.10E-06	1.28E-02 U	3.87E-03	2.76E-03 J	3.46E-03	4.20E-03 U	5.83E-03 U	3.80E-03 U	4.79E-03	5.91E-03 U	5.69E-03 U
2,3,7,8,-TCDF	4.07E-04	7.70E-04	1.14E-02 U	2.83E-03	4.04E-03 U	5.48E-03	5.80E-03 J, K	3.99E-02	1.27E-03	1.60E-02	7.65E-03 U	7.52E-03 U
1,2,3,7,8,-PeCDD	2.00E-04	2.60E-03	1.44E-02 J	1.98E-02	6.63E-03 J, K	2.64E-02	9.06E-03 J, K	2.15E-02 J	2.09E-02 J, K	7.01E-02	1.25E-02 U	7.74E-03 U
1,2,3,7,8,-PeCDF	NE	2.60E-03	5.61E-03 U	2.68E-03	3.20E-03 B, J	4.15E-03	4.47E-03 J, K	3.65E-02 J, K	9.71E-03 J, K	1.35E-02	7.69E-03 U	5.42E-03 U
2,3,4,7,8,-PeCDF	3.00E-04	3.00E-05	5.35E-03 U	5.20E-03	4.42E-03 J,K	1.01E-02	5.28E-03 J, K	6.72E-02 J	1.38E-02 J, K	5.57E-02	6.63E-03 U	5.26E-03 U
1,2,3,4,7,8-HxCDD	NE	NE	1.10E-02 U	2.19E-02	5.09E-03 J	4.22E-02	7.38E-03 J,K	2.53E-02 J	1.90E-02 J,K	1.29E-01	1.02E-02 U	6.97E-03 U
1,2,3,6,7,8,-HxCDD	NE	NE	1.14E-02 J, K	3.98E-02	1.31E-02 J, K	1.02E-01	1.30E-02 J, K	7.01E-02 J	6.09E-02 J	3.62E-01	9.95E-03 U	7.24E-03 U
1,2,3,7,8,9,-HxCDD	NE	NE	2.69E-02 J, K	3.54E-02	9.82E-03 J	5.37E-02	1.37E-05 J	5.30E-02 J	4.82E-02 J	1.63E-01	1.02E-02 U	7.19E-03 U
1,2,3,4,7,8,-HxCDF	4.00E-04	2.70E-03	7.55E-03 J	9.83E-03	5.03E-03 J	1.67E-02	7.59E-03 J	6.92E-02 J	2.41E-02 J	1.08E-01	6.25E-03 J	6.30E-03 J, K
1,2,3,6,7,8,-HxCDF	NE	2.70E-03	6.11E-03 U	8.17E-03	4.24E-03 J, K	1.76E-02	6.05E-03 J, K	6.20E-02 J	1.85E-02 J, K	1.00E-01	5.57E-03 U	6.47E-03 U
1,2,3,7,8,9,-HxCDF	NE	2.70E-03	9.38E-03 U	4.46E-03	3.49E-03 U	6.45E-03	5.03E-03 U	2.04E-02 J, K	6.10E-03 J, K	5.62E-02	7.18E-03 U	8.84E-03 U
2,3,4,6,7,8,-HxCDF	NE	2.70E-03	7.72E-03 J, K	1.21E-02	5.41E-03 J, K	2.64E-02	5.38E-03 J, K	6.03E-02 J, K	2.08E-02 J	1.61E-01	5.95E-03 U	6.74E-03 U
1,2,3,4,6,7,8,-HpCDD	NE	6.90E-01	2.94E-01	1.17E+00	3.42E-01	4.18E+00	3.00E-01	1.99E+00	2.63E+00	1.19E+01	5.70E-02 J	1.08E-01 J
1,2,3,4,6,7,8,-HpCDF	NE	6.90E-01	5.66E-02 J, K	1.36E-01	4.96E-02 J	4.83E-01	5.90E-02 J	5.70E-01	3.88E-01	3.00E+00	1.81E-02 J, K	2.89E-02 J
1,2,3,4,7,8,9,-HpCDF	NE	6.90E-01	1.69E-02 U	9.47E-03	4.07E-03 U	2.69E-02	8.53E-03 U	4.53E-02 J, K	2.50E-02 J	2.14E-01	9.14E-03 U	9.90E-03 U
OCDD	NE	2.30E+01	3.55E+00	1.71E+01	4.70E+00	5.69E+01	3.32E+00	2.01E+01	3.71E+01	1.20E+02	4.54E-01	8.20E-01
OCDF	NE	2.30E+01	9.73E-02 J	2.76E-01	1.08E-01 J	8.63E-01	1.12E-01	1.16E+00	7.94E-01	6.41E+00	2.79E-02 J	4.33E-02 J
Total tetrachlorinated dioxins	NE	NE	1.28E-02 U	3.25E-02	2.76E-03 J	2.62E-02	4.20E-03 J	2.14E-02 J, K	1.65E-02 J	3.78E-02	5.91E-03 U	5.69E-03 U
Total pentachlorinated dioxins	NE	NE	8.07E-02 J, K	1.10E-01	2.28E-02 J, K	1.37E-01	3.43E-02 J, K	1.31E-01 J, K	1.20E-01 J, K	2.90E-01	1.25E-02 U	7.74E-03 U
Total hexachlorinated dioxins	NE	NE	1.80E-01 J, K	4.16E-01	1.06E-01 J, K	4.16E-01	1.25E-01 J, K	5.84E-01 J, K	5.29E-01 J, K	8.20E-01	9.95E-03 U	3.23E-02 J, K
Total heptachlorinated dioxins	NE	NE	6.24E-01	2.42E+00	6.93E-01	8.51E+00	6.31E-01	3.98E+00	5.27E+00	3.73E+01	1.05E-01 J	2.18E-01 J
Total tetrachlorinated furans	NE	NE	1.14E-02 U	7.50E-02	1.93E-02 J, K	1.12E-01	1.77E-02 J, K	7.75E-01 J, K	9.37E-02 J, K	3.19E-01	7.65E-03 U	7.52E-03 U
Total pentachlorinated furans	NE	NE	3.09E-02 J, K	9.01E-02	5.71E-02 J, K	2.36E-01	6.67E-02 J, K	7.17E-01 J, K	2.03E-01 J, K	1.22E+00	5.87E-03 B, J, K	1.62E-02 J, K
Total hexachlorinated furans	NE	NE	7.39E-02 J, K	2.61E-01	8.53E-02 J, K	1.10E+00	9.16E-02 J, K	8.59E-01 J, K	5.28E-01 J, K	7.44E+00	1.56E-02 B, J, K	4.16E-02 J, K
Total heptachlorinated furans	NE	NE	1.41E-01 J, K	3.61E-01	1.37E-01 J, K	1.49E+00	1.49E-01 J, K	1.48E+00 J, K	1.19E+00 J	1.69E+01	5.13E-02 J, K	6.93E-02 J

TABLE 1
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Former Automatic Vending Company
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Analyte	Portland Harbor CULs ¹ (µg/kg)	JSCS SLVs ² (µg/kg)	CB-1 (µg/kg)		CB-2 (µg/kg)		CB-3 (µg/kg)	CB-4 (µg/kg)	CB-5 (µg/kg)		CB-6 (µg/kg)	CB-7 (µg/kg)
Sample Date			12/17/20	12/14/21	12/17/20	12/16/21	12/17/20	12/17/20	12/17/20	12/14/21	12/17/20	12/17/20

Notes:
1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020
2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005
3. Only detected VOCs are listed.
4. Naphthalene was analyzed by Method 8260D and 8270E-SIM in 2020. Method 8260D resulted in lower detection limits, and therefore these results are shown.
B: The target analyte was detected in the associated blank.
J: Value is estimated.
K: Estimated maximum possible concentration.
M-05: Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
NE: not established
P: The percent RPD between the primary and confirmation column/detector is greater than 40 percent. The lower value has been reported.
P-12: Result estimated due to the presence of multiple PCB Aroclors and/or PCB congeners not defined as Aroclors.
Q-42: Matrix spike and/or duplicate analysis was performed on this sample. Percent recovery or RPD for this analyte is outside laboratory control limits.
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than regulatory screening levels.
Italics indicate detection limit is greater than EPA CULs and/or JSCS SLVs.
--: not analyzed

TABLE 2 Summary of Stormwater Sample Chemical Analytical Results Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon								
Analyte	Portland Harbor CULs ¹ (µg/L)	JSCS SLVs ² (µg/L)	SW-1(031821) (µg/L)	SW-1(032821) (µg/L)	SW-1(042421) (µg/L)	SW-1(052421) (µg/L)	SW-1(052822) (µg/L)	
TSS	NE	NE	–	8,000 H-06, Q-42	13,000	29,000	21,400	
Petroleum Hydrocarbons								
Gasoline-Range Hydrocarbons	NE	NE	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	
Diesel-Range Hydrocarbons	NE	NE	118 U	95.2 U	1,010 F-24	340 F-17	93.5 U	
Oil-Range Hydrocarbons	NE	NE	235 U	190 U	2,910 F-24	508 F-24	187 U	
Metals/Inorganics								
Arsenic	0.018	0.045	0.207	0.143	1.70 J	0.549	0.357	
Cadmium	NE	0.094	0.0347	0.0379	0.0713	0.0632	0.0523	
Chromium	100	100	0.500 U	0.500 U	1.85	5.49	5.54	
Mercury	NE	0.77	0.0400 U	0.0400 U	0.0400 U	0.0400 U	0.0400 U	
Zinc	36.5	36	79.5	45.1	140	104	72.9	
Butyltins								
Monobutyltin	NE	NE	0.081	0.061	0.0024 U	0.0026 U	--	
Dibutyltin	NE	NE	0.002 U	0.0016 U	0.0018 U	0.0019 U	--	
Tributyltin	0.063	0.072	0.0016 U	0.0012 U	0.0014 U	0.0015 U	0.0050 U	
Tetrabutyltin	NE	NE	0.0022 U	0.0018 U	0.0020 U	0.0021 U	--	
PCBs Aroclors								
Aroclor 1016	NE	0.96	0.0123 U	0.0200 U	0.0189 U	0.0213 U	0.0189 U	
Aroclor 1221	NE	0.034	0.0247 U	0.0200 U	0.0189 U	0.0426 U	0.0189 U	
Aroclor 1232	NE	0.034	0.0123 U	0.0200 U	0.0189 U	0.0213 U	0.0189 U	
Aroclor 1242	NE	0.034	0.0123 U	0.0200 U	0.0189 U	0.0213 U	0.0189 U	
Aroclor 1248	NE	0.034	0.0123 U	0.0200 U	0.0189 U	0.0213 U	0.0189 U	
Aroclor 1254	NE	0.033	0.0123 U	0.0200 U	0.0189 U	0.0741	0.0113 J	
Aroclor 1260	NE	0.034	0.0123 U	0.0200 U	0.0189 U	0.0213 U	0.0189 U	
Aroclor 1262	NE	NE	--	--	--	--	0.0189 U	
Aroclor 1268	NE	NE	--	--	--	--	0.0189 U	
Total PCBs								
0	0.0000064	0.000064	0.000 U	0.000 U	0.000 U	0.0741	0.0113	
1/2DL			0.0493 U	0.0700 U	0.0662 U	0.149 U	0.0869	
DL			0.0985 U	0.140 U	0.132 U	0.223	0.163	
VOCs								
1,1,1,2- Tetrachloroethane	NE	2.5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	
1,1,1- Trichloroethane (TCA)	NE	11	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	
1,1,2,2- Tetrachloroethane	NE	0.33	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U	
1,1,2- Trichloroethane	NE	1.2	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U	
1,1- Dichloroethane	NE	47	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	
1,2,3- Trichloropropane	NE	0.0095	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.500 U	
1,2- Dichloroethane (EDC)	NE	0.73	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	
cis-1,2-Dichloroethlyene	NE	61	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	
1,2- Dichloropropane	NE	0.97	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U	
1,2- Dibromoethane (EDB)	NE	0.033	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U	
2- Butanone (MEK)	NE	7,100	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	
2- Chloroethyl Vinyl Ether	NE	NE	--	--	--	--	--	
2- Hexanone	NE	99	5.00 U	5.00 U	5.00 U	10.0 U	5.00 U	
4- Methyl-2-Pentanone (MIBK)	NE	170	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	
Acetone	NE	1,500	20.5	10.0 U	89.4	21.4	20.0 U	
Acrolein	NE	0.042	--	--	--	--	--	
Acrylonitrile	NE	0.12	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	
Bromochloromethane	NE	NE	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Bromodichloromethane	NE	1.1	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Bromoform	NE	8.5	0.500 U	0.500 U	1.00 U	1.00 U	0.500 U	
Bromomethane	NE	8.7	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	
Carbon Disulfide	NE	0.92	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	
Carbon Tetrachloride	NE	0.51	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Chlorobenzene	NE	50	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	
Chlorodibromomethane	NE	0.79	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Chloroethane	NE	23	5.00 U	5.00 U	5.00 U	5.00 U	25.0 U	
Chloroform	NE	0.17	0.500 U	0.500 U	0.500 U	0.0500 U	0.500 U	
Chloromethane	NE	2.1	5.00 U	2.50 U	2.50 U	4.04 J	2.50 U	
cis-1,2-dichloroethylene	NE	590	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	
cis-1,3-Dichloropropene	NE	0.055	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.500 U	
Dibromomethane	NE	61	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Dichlorodifluoromethane	NE	390	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Iodomethane (Methyl Iodide)	NE	NE	--	--	--	--	--	
Isopropylbenzene	NE	660	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	
Methylene chloride	NE	8.9	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	
Styrene	NE	100	0.500 U	0.500 U	1.00 U	0.500 U	0.500 U	
trans-1,4-Dichloro-2-butene	NE	7,100	--	--	--	--	--	
Trichlorofluoromethane	NE	1,300	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	
Vinyl Acetate	NE	16	--	--	--	--	--	
Benzene	NE	1.2	0.500 U	0.0500 U	0.0500 U	0.0500 U	0.100 U	
Ethylbenzene	7.3	7.3	0.500 U	0.0500 U	0.0500 U	0.0500 U	0.250 U	
m,p-Xylene	NE	1.8	0.147 J	0.100 U	0.100 U	0.100 U	0.500 U	
o-Xylene	NE	13	0.0588 J	0.0500 U	0.0500 U	0.0500 U	0.250 U	
Xylenes (total)	NE	200	0.206	0.1500 U	0.1500 U	0.1500 U	0.750 U	
Methyl tert-butyl ether	NE	37	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.500 U	
Tetrachloroethene (PCE)	NE	0.12	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	
Toluene	NE	9.8	0.0677 J	0.0500 U	0.0500 U	0.0500 U	0.500 U	

TABLE 2 Summary of Stormwater Sample Chemical Analytical Results Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon								
Analyte	Portland Harbor CULs ¹ (µg/L)	JSCS SLVs ² (µg/L)	SW-1(031821) (µg/L)	SW-1(032821) (µg/L)	SW-1(042421) (µg/L)	SW-1(052421) (µg/L)	SW-1(052822) (µg/L)	
trans-1,2-Dichloroethene	NE	100	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	
trans-1,3-Dichloropropene	NE	0.055	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	
Trichloroethene (TCE)	NE	0.17	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	
Vinyl Chloride	NE	0.015	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	
SVOCs - Halogenated Compounds								
1,2-Dichlorobenzene	NE	49	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	
1,3-Dichlorobenzene	NE	14	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	
1,4-Dichlorobenzene	NE	2.8	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	
1,2,4-Trichlorobenzene	NE	8.2	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	
Hexachlorobenzene	0.000029	0.00029	--	--	--	--	0.00935 U	
2-Chloronaphthalene	NE	490	--	--	--	--	0.00935 U	
Hexachloroethane	NE	3.3	--	--	--	--	0.0234 U	
Hexachlorobutadiene	NE	0.86	2.50 U	2.50 U	2.50 U	2.50 U	0.0234 U	
Hexachlorocyclopentadiene	NE	5.2	--	--	--	--	0.0467 U	
2,2'-oxybis(1-chloropropane)	NE	0.95	--	--	--	--	0.0234 U	
Bis-(2-chloroethoxy) methane	NE	NE	--	--	--	--	0.0234 U	
Bis-(2-chloroethyl) ether	NE	0.06	--	--	--	--	0.0234 U	
4-Chlorophenyl-phenyl ether	NE	0.06	--	--	--	--	0.0234 U	
4-bromophenyl-phenyl ether	NE	NE	--	--	--	--	0.0234 U	
3,3'-Dichlorobenzidine	NE	0.028	--	--	--	--	0.467 U	
4-Chloroaniline	NE	150	--	--	--	--	0.0234 U	
Oxygen-Containing Compounds								
Benzoic Acid	NE	42	--	--	--	--	1.17 U	
Benzyl Alcohol	NE	8.6	--	--	--	--	0.0935 U	
Dibenzofuran	NE	3.7	0.0460 U	0.0102 U	0.388 U	0.190 U	0.00935 U	
Isophorone	NE	71	--	--	--	--	0.0234 U	
Phthalate Esters								
Dimethylphthalate	NE	3	0.920 U	0.204 U	7.77 U	3.81 U	0.187 U	
Diethylphthalate	NE	3	0.920 U	0.204 U	7.77 U	3.81 U	0.187 U	
Di-n-butylphthalate	NE	3	0.920 U	0.204 U	7.77 U	3.81 U	0.187 U	
Butylbenzylphthalate	NE	3	0.920 U	0.204 U	7.77 U	3.81 U	0.187 U	
Di-n-octylphthalate	NE	3	0.920 U	0.204 U	7.77 U	3.81 U	0.187 U	
bis(2-Ethylhexyl)phthalate	NE	2.2	0.920 U	0.204 U	7.77 U	3.81 U	0.212 J	
PAHs								
Naphthalene	12	0.2	0.0920 U	0.0204 U	0.777 U	0.381 U	0.0187 U	
2-Methylnaphthalene	NE	0.2	0.0920 U	0.0204 U	0.777 U	0.381 U	0.0187 U	
Acenaphthylene	NE	0.2	0.0460 U	0.0102 U	0.388 U	0.190 U	0.00935 U	
Acenaphthene	NE	0.2	0.0460 U	0.0102 J	0.388 U	0.190 U	0.00935 U	
Fluorene	NE	0.2	0.0460 U	0.0102 U	0.388 U	0.190 U	0.00935 U	
Phenanthrene	NE	0.2	0.0460 U	0.0117 J	0.388 U	0.190 U	0.0435	
Anthracene	NE	0.2	0.0460 U	0.0102 U	0.388 U	0.190 U	0.00935 U	
Fluoranthene	NE	0.2	0.0460 U	0.0102 U	0.388 U	0.190 U	0.0598	
Pyrene	NE	0.2	0.0460 U	0.0106 J	0.388 U	0.194 J	0.0621	
Benzo(a)anthracene	0.0012	0.018	0.0460 U	0.0102 U	0.388 U	0.190 U	0.0216 J	
Chrysene	0.0013	0.018	0.0460 U	0.0102 U	0.388 U	0.190 U	0.0406	
Benzo(b)fluoranthene	0.0012	0.018	0.0690 U	0.0172 J	0.583 U	0.286 U	0.0380	
Benzo(k)fluoranthene	0.0013	0.018	0.0690 U	0.0153 U	0.583 U	0.286 U	0.0160 J	
Benzo(a)pyrene	0.00012	0.018	0.0690 U	0.0176 J	0.583 U	0.286 U	0.0350	
Indeno(1,2,3-cd)pyrene	0.0012	0.018	0.0460 U	0.0102 U	0.388 U	0.190 U	0.0215	
Dibenz(a,h)anthracene	0.00012	0.018	0.0460 U	0.0102 U	0.388 U	0.190 U	0.00935 U	
Benzo(g,h,i)perylene	NE	0.2	0.0460 U	0.0102 U	0.388 U	0.190 U	0.0294	
cPAHs	0.00012	NE	0.128 U	0.0309	1.08 U	0.53 U	0.0510	
Total PAHs								
0	NE	NE	0.000 U	0.000 U	0.000 U	0.194	0.368	
1/2DL			0.472 U	0.141	3.98 U	2.05	0.410	
DL			0.943 U	0.215	7.96 U	3.90 U	0.452	
Chlorinated Dioxins and Furans								
2,3,7,8-TCDD (Toxicity Equivalence Quotient)	5.1E-10	5.1E-09	4.31E-06	5.48E-06	6.59E-06	1.44E-05	3.51E-06	
2,3,7,8-TCDD	NE	5.1E-09	1.46E-06 U	1.90E-06 U	2.02E-06 U	2.74E-06 U	8.01E-07 U	
2,3,7,8-TCDF	NE	NE	1.68E-06 U	1.84E-06 U	2.24E-06 U	3.51E-06 U	1.10E-06 U	
1,2,3,7,8-PeCDD	NE	NE	1.53E-06 U	1.78E-06 U	1.68E-06 U	2.56E-06 U	1.22E-06 U	
1,2,3,7,8-PeCDF	NE	NE	1.53E-06 U	1.72E-06 U	1.47E-06 U	2.45E-06 U	1.03E-06 U	
2,3,4,7,8-PeCDF	NE	NE	7.88E-07 U	1.54E-06 U	1.32E-06 U	2.30E-06 U	9.33E-07 U	
1,2,3,6,7,8-HxCDD	NE	NE	1.87E-06 U	2.62E-06 J, K	2.86E-06 U	4.97E-06 U	1.80E-06 U	
1,2,3,7,8,9-HxCDD	NE	NE	2.00E-06 U	2.41E-06 U	2.93E-06 U	5.01E-06 U	1.91E-06 U	
1,2,3,4,7,8-HxCDF	NE	NE	9.30E-07 U	1.16E-06 U	1.26E-06 U	3.31E-06 U	9.60E-07 U	
1,2,3,6,7,8-HxCDF	NE	NE	9.09E-07 U	1.16E-06 U	1.31E-06 U	3.11E-06 U	9.45E-07 U	
1,2,3,7,8,9-HxCDF	NE	NE	1.46E-06 U	1.66E-06 U	2.10E-06 U	5.08E-06 U	1.52E-06 U	
2,3,4,6,7,8-HxCDF	NE	NE	9.47E-07 U	1.17E-06 U	1.30E-06 U	3.44E-06 U	9.76E-07 U	
1,2,3,4,6,7,8-HpCDD	NE	NE	1.81E-06 B, J, K	2.62E-06 J, K	6.30E-05	3.17E-04	2.09E-05 J	
1,2,3,4,6,7,8-HpCDF	NE	NE	1.53E-06 U	2.62E-06 J	2.82E-06 J	2.36E-05 J	2.61E-06 J	
1,2,3,4,7,8,9-HpCDF	NE	NE	1.53E-06 U	1.88E-06 U	2.62E-06 U	5.58E-06 U	2.12E-06 U	
OCDD	NE	NE	2.49E-05 B, J	4.48E-05 J	1.22E-03	6.75E-03	2.93E-04	
OCDF	NE	NE	2.64E-06 B, J, K	5.39E-06 U	7.91E-06 J	5.62E-05 J	5.25E-06 J	
Total tetrachlorinated dioxins	NE	NE	2.29E-06 J, K	1.90E-06 U	2.02E-06 U	2.74E-06 U	8.01E-07 U	
Total pentachlorinated dioxins	NE	NE	1.53E-06 U	1.78E-06 U	1.68E-06 U	2.56E-06 U	1.22E-06 U	
Total hexachlorinated dioxins	NE	NE	1.31E-05 B, J, K	1.82E-05 J, K	2.86E-06 U	2.95E-05 J	5.35E-06 J, K	

TABLE 2 Summary of Stormwater Sample Chemical Analytical Results Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon							
Analyte	Portland Harbor CULs ¹ (µg/L)	JSCS SLVs ² (µg/L)	SW-1(031821) (µg/L)	SW-1(032821) (µg/L)	SW-1(042421) (µg/L)	SW-1(052421) (µg/L)	SW-1(052822) (µg/L)
Total heptachlorinated dioxins	NE	NE	3.17E-05 J, K	1.09E-04 J	1.44E-04	7.23E-04	4.87E-05 J
Total tetrachlorinated furans	NE	NE	1.68E-06 U	1.84E-06 U	2.24E-06 U	3.51E-06 U	1.10E-06 U
Total pentachlorinated furans	NE	NE	6.41E-07 U	1.24E-06 U	1.32E-06 U	4.28E-06 J, K	6.80E-07 J, K
Total hexachlorinated furans	NE	NE	1.05E-06 B, J, K	1.89E-06 J, K	3.42E-06 B	2.52E-05 J, K	3.03E-07 J, K
Total heptachlorinated furans	NE	NE	1.81E-06 B, J, K	5.64E-06 J	9.39E-06 U	8.49E-05 J	7.02E-06 J, K
<p>Notes:</p> <p>1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020</p> <p>2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005</p> <p>B: The target analyte was detected in the associated blank.</p> <p>F-17: No fuel pattern detected.</p> <p>F-24: The chromatographic pattern does not resemble the fuel standard used for quantitation. The diesel result represents carbon range C12 to C24, and the oil result represents >C24 to C40.</p> <p>H-06: This samples was analysis outside the recommended holding time.</p> <p>J: Value is estimated.</p> <p>K: Estimated maximum possible concentration.</p> <p>NE: not established</p> <p>Q-42: Matrix spike and/or duplicate analysis was performed on this sample. Percent recovery or RPD for this analyte is outside laboratory control limits.</p> <p>U: Not detected. Reporting or detection limit shown.</p> <p>Bolding indicates analyte detection.</p> <p>Shading indicates analyte detection at a concentration greater than regulatory screening level.</p> <p>Italics indicate the laboratory detection limit is greater than the screening level.</p> <p>--: not analyzed</p>							

TABLE 3 Summary of Stormwater Sample Chemical Analytical Results Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon							
Analyte	Portland Harbor CULs ¹ (µg/L)	JSCS SLVs ² (µg/L)	SW-2(031821) (µg/L)	SW-2(032821) (µg/L)	SW-2(042421) (µg/L)	SW-2(052421) (µg/L)	SW-2(052822) (µg/L)
TSS	NE	NE	–	5,000 U	8,000	5,000 U	36,800
Petroleum Hydrocarbons							
Gasoline-Range Hydrocarbons	NE	NE	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U
Diesel-Range Hydrocarbons	NE	NE	205 F-11, F-15	306 F-11	3,460 F-11	2,040 F-11	93.5 U
Oil-Range Hydrocarbons	NE	NE	502 F-16	187 U	192 U	190 U	187 U
Metals/Inorganics							
Arsenic	0.018	0.045	0.239	0.190	1.14	0.566 J	0.386
Cadmium	NE	0.094	0.0683	0.0408	0.280	0.130 J	0.0534
Chromium	100	100	0.500 U	0.500 U	2.64	2.24	1.60
Mercury	NE	0.77	0.0400 U	0.0400 U	0.0400 U	0.0400 U	0.0400 U
Zinc	36.5	36	142	41.7	703	312	40.7
Butyltins							
Monobutyltin	NE	NE	0.150	0.0025 U	0.0023 U	0.0023 U	–
Dibutyltin	NE	NE	0.0017 U	0.0025 U	0.024	0.0017 U	–
Tributyltin	0.063	0.072	0.0013 U	0.0025 U	0.0013 U	0.0013 U	0.0050 U
Tetrabutyltin	NE	NE	0.0019 U	0.0025 U	0.0019 U	0.0018 U	–
PCBs Aroclors							
Aroclor 1016	NE	0.96	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0189 U
Aroclor 1221	NE	0.034	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0189 U
Aroclor 1232	NE	0.034	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0189 U
Aroclor 1242	NE	0.034	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0189 U
Aroclor 1248	NE	0.034	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0189 U
Aroclor 1254	NE	0.033	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0189 U
Aroclor 1260	NE	0.034	0.00952 U	0.0187 U	0.0189 U	0.0187 U	0.0395
Aroclor 1262	NE	NE	–	–	–	–	0.0189 U
Aroclor 1268	NE	NE	–	–	–	–	0.0189 U
Total PCBs							
0	0.0000064	0.000064	0.000 U	0.000 U	0.000 U	0.000 U	0.0395
1/2DL			0.0333 U	0.0655	0.0662	0.0655	0.115
DL			0.0666 U	0.131 U	0.132 U	0.131 U	0.191
VOCs							
1,1,1,2- Tetrachloroethane	NE	2.5	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,1,1- Trichloroethane (TCA)	NE	11	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
1,1,2,2- Tetrachloroethane	NE	0.33	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U
1,1,2- Trichloroethane	NE	1.2	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U
1,1- Dichloroethane	NE	47	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U
1,2,3- Trichloropropane	NE	0.0095	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.500 U
1,2- Dichloroethane (EDC)	NE	0.73	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U
cis-1,2-Dichloroethlyene	NE	61	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U
1,2- Dichloropropane	NE	0.97	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U
1,2- Dibromoethane (EDB)	NE	0.033	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.250 U
2- Butanone (MEK)	NE	7,100	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
2- Chloroethyl Vinyl Ether	NE	NE	–	–	–	–	–
2- Hexanone	NE	99	5.00 U	5.00 U	5.00 U	10.0 U	5.00 U
4- Methyl-2-Pentanone (MIBK)	NE	170	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Acetone	NE	1,500	20.0 U	10.0 U	20.0 U	10.0 U	10.0 U
Acrolein	NE	0.042	–	–	–	–	–
Acrylonitrile	NE	0.12	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Bromochloromethane	NE	NE	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Bromodichloromethane	NE	1.1	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Bromoform	NE	8.5	0.500 U	0.500 U	1.00 U	1.00 U	0.500 U
Bromomethane	NE	8.7	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Carbon Disulfide	NE	0.92	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Carbon Tetrachloride	NE	0.51	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Chlorobenzene	NE	50	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U
Chlorodibromomethane	NE	0.79	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Chloroethane	NE	23	5.00 U	5.00 U	5.00 U	5.00 U	25.0 U
Chloroform	NE	0.17	0.500 U	0.500 U	0.500 U	0.0500 U	0.500 U
Chloromethane	NE	2.1	5.00 U	2.50 U	2.50 U	2.50 U	2.50 U
cis-1,2-dichloroethylene	NE	590	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U
cis-1,3-Dichloropropene	NE	0.055	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.500 U
Dibromomethane	NE	61	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Dichlorodifluoromethane	NE	390	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Iodomethane (Methyl Iodide)	NE	NE	–	–	–	–	–
Isopropylbenzene	NE	660	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
Methylene chloride	NE	8.9	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Styrene	NE	100	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U
trans-1,4-Dichloro-2-butene	NE	7,100	–	–	–	–	–
Trichlorofluoromethane	NE	1,300	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Vinyl Acetate	NE	16	–	–	–	–	–
Benzene	NE	1.2	0.500 U	0.0500 U	0.0500 U	0.0500 U	0.100 U
EthylBenzene	7.3	7.3	0.500 U	0.0500 U	0.0500 U	0.0500 U	0.250 U
m,p-Xylene	NE	1.8	0.100 U	0.100 U	0.100 U	0.100 U	0.500 U
o-Xylene	NE	13	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.250 U
Xylenes (total)	NE	200	0.1500 U	0.1500 U	0.1500 U	0.1500 U	0.750 U
Methyl tert-butyl ether	NE	37	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.500 U

TABLE 3 Summary of Stormwater Sample Chemical Analytical Results Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon								
Analyte	Portland Harbor CULs ¹ (µg/L)	JSCS SLVs ² (µg/L)	SW-2(031821) (µg/L)	SW-2(032821) (µg/L)	SW-2(042421) (µg/L)	SW-2(052421) (µg/L)	SW-2(052822) (µg/L)	
Tetrachloroethene (PCE)	NE	0.12	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	U
Toluene	NE	9.8	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.500 U	U
trans-1,2-Dichloroethene	NE	100	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	U
trans-1,3-Dichloropropene	NE	0.055	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.200 U	U
Trichloroethene (TCE)	NE	0.17	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	U
Vinyl Chloride	NE	0.015	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	U
SVOCs - Halogenated Compounds								
1,2-Dichlorobenzene	NE	49	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	U
1,3-Dichlorobenzene	NE	14	0.250 U	0.250 U	0.250 U	0.25 U	0.250 U	U
1,4-Dichlorobenzene	NE	2.8	0.250 U	0.250 U	0.250 U	0.250 U	0.250 U	U
1,2,4-Trichlorobenzene	NE	8.2	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	U
Hexachlorobenzene	0.000029	0.00029	--	--	--	--	--	0.0374 U
2-Chloronaphthalene	NE	490	--	--	--	--	--	0.0374 U
Hexachloroethane	NE	3.3	--	--	--	--	--	0.0935 U
Hexachlorobutadiene	NE	0.86	2.50 U	2.50 U	2.50 U	2.50 U	0.0935 U	U
Hexachlorocyclopentadiene	NE	5.2	--	--	--	--	--	0.187 U
2,2'-oxybis(1-chloropropane)	NE	0.95	--	--	--	--	--	0.0935 U
Bis-(2-chloroethoxy) methane	NE	NE	--	--	--	--	--	0.0935 U
Bis-(2-chloroethyl) ether	NE	0.06	--	--	--	--	--	0.0935 U
4-Chlorophenyl-phenyl ether	NE	0.06	--	--	--	--	--	0.0935 U
4-bromophenyl-phenyl ether	NE	NE	--	--	--	--	--	0.0935 U
3,3'-Dichlorobenzidine	NE	0.028	--	--	--	--	--	1.87 U
4-Chloroaniline	NE	150	--	--	--	--	--	0.0935 U
Oxygen-Containing Compounds								
Benzoic Acid	NE	42	--	--	--	--	--	4.67 U
Benzyl Alcohol	NE	8.6	--	--	--	--	--	0.374 U
Dibenzofuran	NE	3.7	0.0374 U	0.0374 U	0.197 U	0.189 U	0.0374 U	U
Isophorone	NE	71	--	--	--	--	--	0.0935 U
Phthalate Esters								
Dimethylphthalate	NE	3	0.748 U	0.0748 U	3.88 U	3.77 U	0.748 U	U
Diethylphthalate	NE	3	0.748 U	0.0748 U	3.88 U	3.77 U	0.748 U	U
Di-n-butylphthalate	NE	3	0.748 U	0.0748 U	3.88 U	3.77 U	0.748 U	U
Butylbenzylphthalate	NE	3	0.748 U	0.0748 U	3.88 U	3.77 U	0.748 U	U
Di-n-octylphthalate	NE	3	0.748 U	0.0748 U	3.88 U	3.77 U	0.748 U	U
bis(2-Ethylhexyl)phthalate	NE	2.2	0.748 U	0.0748 U	3.88 U	3.77 U	0.748 U	U
PAHs								
Naphthalene	12	0.2	0.0748 U	0.0748 U	0.194 U	0.377 U	0.0748 U	U
2-Methylnaphthalene	NE	0.2	0.0748 U	0.0748 U	0.388 U	0.377 U	0.0748 U	U
Acenaphthylene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0374 U	U
Acenaphthene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0374 U	U
Fluorene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0374 U	U
Phenanthrene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0889	
Anthracene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0374 U	U
Fluoranthene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.238	
Pyrene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.200	
Benzo(a)anthracene	0.0012	0.018	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0691	J
Chrysene	0.0013	0.018	0.0374 U	0.0374 U	0.194 U	0.189 U	0.151	
Benzo(b)fluoranthene	0.0012	0.018	0.0561 U	0.0561 U	0.291 U	0.283 U	0.187	
Benzo(k)fluoranthene	0.0013	0.018	0.0561 U	0.0561 U	0.291 U	0.283 U	0.0733	J
Benzo(a)pyrene	0.00012	0.018	0.0561 U	0.0561 U	0.291 U	0.283 U	0.146	
Indeno(1,2,3-cd)pyrene	0.0012	0.018	0.0374 U	0.0374 U	0.194 U	0.189 U	0.112	
Dibenz(a,h)anthracene	0.00012	0.018	0.0374 U	0.0374 U	0.194 U	0.189 U	0.0374 U	U
Benzo(g,h,i)perylene	NE	0.2	0.0374 U	0.0374 U	0.194 U	0.189 U	0.114	
cPAHs	0.00012	NE	0.104 U	0.104 U	0.540 U	0.526 U	0.212	
Total PAHs								
0	NE	NE	0.000 U	0.000 U	0.000 U	0.000 U	1.18	
1/2DL			0.383 U	0.383 U	1.89 U	1.94 U	1.26	
DL			0.767 U	0.767 U	3.78 U	3.87 U	1.72	
Chlorinated Dioxins and Furans								
2,3,7,8,-TCDD (Toxicity Equivalence Quotient)	5.1E-10	5.1E-09	3.60E-06	7.65E-06	8.55E-06	1.18E-05	4.58E-06	
2,3,7,8,-TCDD	NE	5.1E-09	9.61E-07 U	2.09E-06 U	1.90E-06 U	2.21E-06 U	1.38E-06 U	
2,3,7,8,-TCDF	NE	NE	1.07E-07 U	2.51E-06 U	2.13E-06 U	2.98E-06 U	1.58E-06 U	
1,2,3,7,8,-PeCDD	NE	NE	1.08E-06 U	2.68E-06 U	2.07E-06 U	2.70E-06 U	1.40E-06 U	
1,2,3,7,8,-PeCDF	NE	NE	7.29E-07 U	1.70E-06 U	1.55E-06 U	1.81E-06 U	1.22E-06 U	
2,3,4,7,8,-PeCDF	NE	NE	6.48E-07 U	1.57E-06 U	1.52E-06 U	1.70E-06 U	1.22E-06 U	
1,2,3,6,7,8,-HxCDD	NE	NE	1.71E-06 U	3.37E-06 U	3.79E-06 U	3.70E-06 U	1.47E-06 U	
1,2,3,7,8,9,-HxCDD	NE	NE	2.04E-06 J, K	3.47E-06 U	3.94E-06 U	3.83E-06 U	1.60E-06 U	
1,2,3,4,7,8,-HxCDF	NE	NE	5.48E-07 U	1.40E-06 U	1.96E-06 U	1.76E-06 U	1.14E-06 U	
1,2,3,6,7,8,-HxCDF	NE	NE	5.25E-07 U	1.41E-06 U	1.88E-06 U	1.73E-06 U	1.06E-06 U	
1,2,3,7,8,9,-HxCDF	NE	NE	7.99E-07 U	2.28E-06 U	2.82E-06 U	2.82E-06 U	1.65E-06 U	
2,3,4,6,7,8,-HxCDF	NE	NE	5.38E-07 U	1.40E-06 U	1.92E-06 U	1.79E-06 U	1.09E-06 U	
1,2,3,4,6,7,8,-HpCDD	NE	NE	4.45E-05 J	5.46E-05	1.32E-04	2.47E-04	3.61E-05 J, K	
1,2,3,4,6,7,8,-HpCDF	NE	NE	1.20E-06 B, J, K	2.45E-06 J	3.79E-06 U	7.71E-06 J, K	6.08E-06 J	
1,2,3,4,7,8,9,-HpCDF	NE	NE	1.22E-06 U	3.01E-06 U	4.79E-06 J	4.03E-06 U	1.49E-06 U	
OCDD	NE	NE	8.07E-04	5.62E-04	2.76E-03	6.27E-03	4.45E-04	

TABLE 3 Summary of Stormwater Sample Chemical Analytical Results Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon							
Analyte	Portland Harbor CULs ¹ (µg/L)	JSCS SLVs ² (µg/L)	SW-2(031821) (µg/L)	SW-2(032821) (µg/L)	SW-2(042421) (µg/L)	SW-2(052421) (µg/L)	SW-2(052822) (µg/L)
OCDF	NE	NE	4.11E-06 B, J, K	5.56E-06 U	7.08E-06 J	4.28E-06 U	1.03E-05 J, K
Total tetrachlorinated dioxins	NE	NE	9.61E-07 U	2.09E-06 U	1.90E-06 U	2.21E-06 U	1.38E-06 U
Total pentachlorinated dioxins	NE	NE	1.83E-06 B, J, K	2.68E-06 U	2.07E-06 U	1.50E-06 U	1.40E-06 U
Total hexachlorinated dioxins	NE	NE	1.95E-05 B, J, K	1.85E-05 J, K	1.69E-05 J, K	1.99E-05 J, K	8.32E-06 J, K
Total heptachlorinated dioxins	NE	NE	1.08E-04 U	1.19E-04	3.19E-04	5.68E-04	7.59E-05 J, K
Total tetrachlorinated furans	NE	NE	1.07E-06 U	2.51E-06 U	2.13E-06 U	2.98E-06 U	1.58E-06 U
Total pentachlorinated furans	NE	NE	7.72E-07 B, J	1.57E-06 U	2.07E-06 J, K	2.36E-06 J, K	6.37E-06 J, K
Total hexachlorinated furans	NE	NE	1.89E-06 B, J, K	1.40E-06 U	5.76E-06 U	1.11E-05 J	5.91E-06 J
Total heptachlorinated furans	NE	NE	4.86E-06 B, J, K	6.44E-06 J, K	1.62E-05 U	3.13E-05 J, K	1.39E-05 J
<p>Notes:</p> <p>1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020</p> <p>2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005</p> <p>B: The target analyte was detected in the associated blank.</p> <p>F-11: The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.</p> <p>F-15: Results for diesel are estimated ted due to overlap from the reported oil result.</p> <p>F-16: Results for oil are estimated due to overlap from the reported diesel result.</p> <p>J: Value is estimated.</p> <p>K: Estimated maximum possible concentration.</p> <p>NE: not established</p> <p>U: Not detected. Reporting or detection limit shown.</p> <p>Bolding indicates analyte detection.</p> <p>Shading indicates analyte detection at a concentration greater than regulatory screening level.</p> <p>Italics indicate the laboratory detection limit is greater than the screening level.</p> <p>--: not analyzed</p>							

APPENDIX A

TABLE A-1
Summary of Soil Sample Chemical Analytical Results
Petroleum Hydrocarbons
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Boring/Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	Hydrocarbon Identification Method NWTPH-HCID (mg/kg)			Gasoline-Range Hydrocarbons Method NWTPH-Gx (mg/kg)	Diesel- and Oil-Range Hydrocarbons Method NWTPH-Dx (mg/kg)		Total Petroleum Hydrocarbons (mg/kg)	TPH Method 418.1 (mg/kg)
				Gasoline-Range	Diesel-Range	Oil-Range		Diesel-Range	Oil-Range		
Confirmation Soil Samples - Northeastern USTs											
#1	14	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#2	14	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#3	14	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#4	14	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#5	14	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#6	14	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#7	12	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
#8	12	Unknown	09/27/91	ND	ND	ND	–	–	–	--	--
Confirmation Soil Samples - Shop USTs											
1	8	Unknown	10/17/91	ND	ND	DET	–	–	–	--	970
2	8	Unknown	10/17/91	ND	ND	DET	–	–	–	--	1,200
3	7	Unknown	10/17/91	ND	ND	DET	–	–	–	--	2,300
4	8	Unknown	10/17/91	ND	ND	DET	–	–	–	--	990
1	6	Unknown	11/18/91	–	–	–	–	–	–	--	690
2	7	Unknown	11/18/91	–	–	–	–	–	–	--	590
3	9	Unknown	11/18/91	–	–	–	–	–	–	--	260
4	7	Unknown	11/18/91	–	–	–	–	–	–	--	190
5	7.5	Unknown	11/18/91	–	–	–	–	–	–	--	930
6	8	Unknown	11/18/91	–	–	–	–	–	–	--	390
7	8.5 - 9	Unknown	11/18/91	–	–	–	–	–	–	--	1,400
8	7.5	Unknown	11/18/91	–	–	–	–	–	–	--	220
9	7	Unknown	11/18/91	–	–	–	–	–	–	--	910
10	7.5	Unknown	11/18/91	–	–	–	–	–	–	--	1,600
11	6.5	Unknown	11/18/91	–	–	–	–	–	–	--	900
12	6.5-7	Unknown	11/18/91	–	–	–	–	–	–	--	210
K&S Borings											
B-1 - #1	4	Native	01/09/19	ND	ND	ND	–	–	–	–	--
B-2 - #2	4	Native	01/09/19	ND	ND	DET	–	25.0	U	402	427
B-3 - #3*	7	Native	01/09/19	--	--	--	70.5	25,800	17,000	42,871	--

TABLE A-1
Summary of Soil Sample Chemical Analytical Results
Petroleum Hydrocarbons
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Boring/Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	Hydrocarbon Identification Method NWTPH-HCID (mg/kg)			Gasoline-Range Hydrocarbons Method NWTPH-Gx (mg/kg)	Diesel- and Oil-Range Hydrocarbons Method NWTPH-Dx (mg/kg)		Total Petroleum Hydrocarbons (mg/kg)	TPH Method 418.1 (mg/kg)
				Gasoline-Range	Diesel-Range	Oil-Range		Diesel-Range	Oil-Range		
B-4 - #4	8	Native	01/09/19	--	--	--	--	25.0 U	610	635	--
B-3 - #5*	9	Native	01/09/19	--	--	--	--	357 U	10,200	10,557	--
Confirmation Soil Samples - Hydraulic Hoist Remedial Excavation											
C1	12	Native	03/08/19	--	--	--	--	25.0 U	1,450	1,475	--
C2	12	Native	03/08/19	--	--	--	--	25.0 U	1,060	1,085	--
C3	9	Native	03/08/19	--	--	--	--	948 U	3,600	4,548	--
C4	9	Native	03/08/19	--	--	--	--	25.0 U	50.0 U	75.0	--
C5	9	Native	03/08/19	--	--	--	--	25.0 U	60.7	85.7	--
C6	9	Native	03/08/19	--	--	--	--	25.0 U	50.0 U	75.0	--
C7	10	Native	03/08/19	--	--	--	--	276	326	602	--
C8	14	Native	03/08/19	--	--	--	--	25.0 U	718	743	--
GeoDesign Borings											
DP-1	11-12.5	Native	07/18/19	--	--	--	3.04 U	11.1 U	22.2 U	36.3	--
DP-2	11-12.5	Native	07/18/19	--	--	--	3.10 U	9.64 U	19.3 U	32.0	--
DP-2	21-22.5	Native	07/18/19	--	--	--	2.89 U	9.81 U	261	274	--
DP-2	25-26.5	Native	07/18/19	--	--	--	--	11.6 U	23.3 U	34.9	--
DP-3	10-11.5	Native	07/18/19	--	--	--	2.83 U	9.77 U	19.5 U	32.1	--
DP-4	11.5-13	Native	07/19/19	--	--	--	2.87 U	9.90 U	19.8 U	32.6	--
DP-5	10-11.5	Native	07/19/19	--	--	--	3.12 U	10.6 U	21.3 U	35.0	--
DP-6	12-13.5	Native	07/19/19	--	--	--	2.76 U	9.72 U	19.4 U	31.9	--
DP-7	11.5-13	Native	07/19/19	--	--	--	2.59 U	10.4 U	20.7 U	33.7	--
DP-8	11.5-13	Native	07/19/19	--	--	--	3.01 U	10.1 U	20.1 U	33.2	--
DP-9	11-12.5	Native	07/19/19	--	--	--	3.18 U	10.6 U	21.3 U	35.1	--
DP-10	6-7.5	Native	07/19/19	--	--	--	3.24 U	10.3 U	20.5 U	34.0	--
DP-11	6-7.5	Fill	07/19/19	--	--	--	15.0	218 U	972	1,205	--
DP-11	10-11.5	Native	07/19/19	--	--	--	4.42	10.6 U	21.2 U	36.2	--
DP-12	5-6.5	Fill	07/19/19	--	--	--	14.5	213 U	1,360	1,588	--
DP-12	10-11.5	Native	07/19/19	--	--	--	2.99 U	10.0 U	20.1 U	33.1	--
DP-13	5-6.5	Fill	07/19/19	--	--	--	22.0	315 U	1,680	2,017	--
DP-13	10-11.5	Native	07/19/19	--	--	--	3.38 U	10.3 U	20.5 U	34.2	--
DP-14	0.5-1.5	Fill	07/16/20	--	--	--	2.90 U	10.6 U	427	441	--

TABLE A-1
Summary of Soil Sample Chemical Analytical Results
Petroleum Hydrocarbons
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Boring/Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	Hydrocarbon Identification Method NWTPH-HCID (mg/kg)			Gasoline-Range Hydrocarbons Method NWTPH-Gx (mg/kg)	Diesel- and Oil-Range Hydrocarbons Method NWTPH-Dx (mg/kg)		Total Petroleum Hydrocarbons (mg/kg)	TPH Method 418.1 (mg/kg)
				Gasoline-Range	Diesel-Range	Oil-Range		Diesel-Range	Oil-Range		
DP-14	1.5-2.5	Native	07/16/20	–	–	–	2.93 U	10.8 U	43.0 U	56.7	–
DP-15	1-2	Fill	07/16/20	–	–	–	8.48	225 <i>U</i>	1,940	2,173	–
DP-15	2.5-3.5	Native	07/16/20	–	–	–	2.50 U	10.1 U	40.5 U	53.1	–
DP-16	6-7	Native	07/16/20	–	–	–	2.96 U	10.2 U	40.7 U	53.9	–
DP-17	0.5-1.5	Fill	07/16/20	–	–	–	3.20 U	11.8 U	47.1	62.1	–
DP-17	2-3	Native	07/16/20	–	–	–	3.13 U	12.1 U	30.1	45.3	–
DP-18	2-3	Fill	07/16/20	–	–	–	3.25 U	12.2 U	29.0	44.5	–
DP-19	0.5-1.5	Fill	07/16/20	–	–	–	3.18 U	11.5 U	23.0 U	37.7	–
Off-Site Borings											
#1 B-1	5-6.5	Fill	05/05/92	–	–	–	–	–	–	–	1,100
#2 B-1	7.5-8	Fill	05/05/92	–	–	–	–	–	–	–	1,400
#3 B-2	4-5.5	Fill	05/05/92	–	–	–	–	–	–	–	1,800
#4 B-2C	7-8.5	Fill	05/05/92	–	–	–	–	–	–	–	ND
#5 B-3	4-5.5	Fill	05/05/92	–	–	–	–	–	–	–	66
#6 B-3	7-8.5	Fill	05/05/92	–	–	–	–	–	–	–	2,000
EPA Portland Harbor CULs ¹				NE	NE	NE	NE	91	NE	NE	NE
DEQ JSCS SLVs ²				NE	NE	NE	NE	NE	NE	NE	NE

Notes:
1. Table 17 of EPA’s Record of Decision for the Portland Harbor Superfund Site, updated January 2020
2. Table 3.1 of DEQ’s Portland Harbor Joint Source Control Strategy, dated December 2005
DET: detected
ND: not detected at concentrations greater than the reporting or detection limit shown
NE: not established
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than regulatory screening level.
Italics indicate detection limit is greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs.
–: not analyzed
* Soil represented by this samples was subsequently removed.

TABLE A-2
Summary of Soil Sample Chemical Analytical Results
EPH and VPH
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Boring/ Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	EPH Method NWEPH (mg/kg)												VPH Method NWVPH (mg/kg)						
				C8-C10 Aliphatic	C10-C12 Aliphatic	C12-C16 Aliphatic	C16-C21 Aliphatic	C21-C34 Aliphatic	C8-C10 Aromatic	C10-C12 Aromatic	C12-C16 Aromatic	C16-C21 Aromatic	C21-C34 Aromatic	C5-C6 Aliphatic	C6-C8 Aliphatic	C8-C10 Aliphatic	C10-C12 Aliphatic	C8-C10 Aromatic	C10-C12 Aromatic	C12-C13 Aromatic		
DP-1	11-12.5	Native	07/18/19	25.9 U, C	13.0 U	13.0 U	13.0 U	13.0 U	13.0 U, C	13.0 U, C	13.0 U	13.0 U	13.0 U	13.0 U	3.69 U	5.28 U	2.96 U	3.17 U	6.33 U	1.27 U	14.8 U	
DP-2	11-12.5	Native	07/18/19	18.8 U, C	9.42 U	9.42 U	9.42 U	9.42 U	9.42 U, C	9.42 U, C	9.42 U	9.42 U	9.42 U	9.42 U	2.04 U	2.91 U	1.63 U	1.74 U	3.49 U	0.698 U	8.14 U	
DP-2	21-22.5	Native	07/18/19	20.4 U, C	10.2 U	10.2 U	10.2 U	10.2 U	10.2 U, C	10.2 U, C	10.2 U	10.2 U	10.2 U	10.2 U	1.96 U	2.81 U	1.57 U,Q	1.68 U	3.37 U	0.880 Q	7.85 U, Q	
DP-3	10-11.5	Native	07/18/19	24.4 U, C	12.2 U	12.2 U	12.2 U	12.2 U	12.2 U, C	12.2 U, C	12.2 U	12.2 U	12.2 U	12.2 U	2.30 U	3.29 U	1.84 U	1.97 U	3.95 U	0.790 U	9.21 U	
DP-5	10-11.5	Native	07/19/19	20.5 U, C	10.2 U	10.2 U	10.2 U	10.2 U	10.2 U, C	10.2 U, C	10.2 U	10.2 U	10.2 U	10.2 U	2.01 U	2.87 U	1.61 U	1.72 U	3.44 U	0.688 U	8.03 U	
DP-10	6-7.5	Native	07/19/19	20.9 U, C	10.4 U	10.4 U	10.4 U	10.4 U	10.4 U, C	10.4 U, C	10.4 U	10.4 U	10.4 U	10.4 U	2.07 U	2.95 U	1.65 U	1.77 U	3.54 U	0.709 U	8.27 U	
DP-11	6-7.5	Fill	07/19/19	23.8 U, C	11.9 U	11.9 U	11.9 U	17.1	11.9 U, C	11.9 U, C	11.9 U	17.8	62.4	2.90 U	4.14 U	2.32 U	2.49 U	4.97 U	1.25	11.6 U		
DP-11	10-11.5	Native	07/19/19	18.9 U, C	9.46 U	9.46 U	9.46 U	9.46 U	9.46 U, C	9.46 U, C	9.46 U	9.46 U	9.46 U	9.46 U	2.89 U	4.14 U	2.32 U,Q	2.48 U	4.96 U	0.992 U, Q	11.6 U, Q	
DP-12	5-6.5	Fill	07/19/19	21.8 U, C	10.9 U	62.9	78.8	26.9	10.9 U, C	10.9 U, C	10.9 U	16.1	54.0	2.28 U	3.26 U	1.83 U	2.12	3.91 U	6.63	9.13 U		
DP-12	10-11.5	Native	07/19/19	21.4 U, C	10.7 U	10.7 U	10.7 U	10.7 U	10.7 U, C	10.7 U, C	10.7 U	10.7 U	10.7 U	10.7 U	1.86 U	2.66 U	1.49 U,Q	1.60 U	3.20 U	0.639 U, Q	7.46 U, Q	
DP-13	5-6.5	Fill	07/19/19	19.8 U, C	9.88 U	11.4	58.3	158	9.88 U, C	9.88 U, C	9.88 U	25.4	128	1.93 U	2.76 U	1.83	9.89	3.32 U	10.4	11.8		
DP-13	10-11.5	Native	07/19/19	22.4 U, C	11.2 U	11.2 U	11.2 U	11.2 U	11.2 U, C	11.2 U, C	11.2 U	11.2 U	11.2 U	11.2 U	2.58 U	3.68 U	2.06 U,Q	2.21 U	4.42 U	0.884 U, Q	10.3 U, Q	
DP-14	0.5-1.5	Fill	07/16/20	22.7 U	11.4 U	11.4 U	11.4 U	11.4 U	11.4 U	11.4 U	11.4 U	11.4 U	11.4 U	11.4 U	2.20 U	3.15 U	1.76 U	1.89 U	3.78 U	6.44	8.81 U	
DP-15	1-2	Fill	07/16/20	19.9 U	9.97 U	9.97 U	11.6	172	9.97 U	9.97 U	9.97 U	46.2	205	1.65 U	2.35 U	1.32 U	3.46	2.82 U	46.6	10.5		
EPA Portland Harbor CULs ¹				NE	2.6	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
DEQ JSCS SLVs ²				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Notes:
1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020
2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005
C: Value is not within control limits.
NE: not established
Q: analyte with an initial or continuing calibration that does not meet established acceptance criteria
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Italics indicate detection limit is greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs.

TABLE A-3 Summary of Soil Sample Chemical Analytical Results VOCs Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon																											
Boring/Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	VOCs ¹ EPA Methods 5035A and 8260C (mg/kg)																							
				n-Butylbenzene	Ethylbenzene	4-Methyl-2-Pentanone (MiBK)	Isopropylbenzene	n-propylbenzene	Naphthalene	PCE	Toluene	1,2,4-TMB	1,3,5-TMB	m,p-Xylenes	o-Xylenes												
K&S Borings																											
B-3 - #3*	7	Native	01/09/19	0.133	M-02	0.0338	0.626	U	0.103	0.239	1.18	10.3	0.115	0.987	0.577	0.162	0.135										
Confirmation Soil Samples - Hydraulic Hoist Remedial Excavation																											
C1	12	Unknown	03/08/19	0.0516	U	0.0258	U	0.0516	U	0.0258	U	0.103	U	1.66	0.0516	U	0.0516	U	0.0258	U							
C2	12	Unknown	03/08/19	0.0501	U	0.0251	U	0.0501	U	0.0251	U	0.100	U	0.845	0.0501	U	0.0501	U	0.0501	U	0.0251	U					
C3	9	Unknown	03/08/19	0.0588	U	0.0294	U	0.588	U	0.0588	U	0.0294	U	0.118	U	3.42	0.0588	U	0.0588	U	0.0294	U					
C4	9	Unknown	03/08/19	0.0542	U	0.0271	U	0.542	U	0.0542	U	0.0271	U	0.108	U	0.0339	0.0542	U	0.0542	U	0.0271	U					
C5	9	Unknown	03/08/19	0.0495	U	0.0248	U	0.495	U	0.0495	U	0.0248	U	0.0991	U	0.0248	U	0.0495	U	0.0495	U	0.0248	U				
C6	9	Unknown	03/08/19	0.0512	U	0.0256	U	0.512	U	0.0512	U	0.0256	U	0.102	U	0.0256	U	0.0512	U	0.0512	U	0.0256	U				
C7	10	Unknown	03/08/19	0.0618	U	0.0309	U	0.618	U	0.0618	U	0.0309	U	0.124	U	0.175	0.0618	U	0.0618	U	0.0618	U	0.0309	U			
C8	14	Unknown	03/08/19	0.0634	U	0.0317	U	0.634	U	0.0634	U	0.0317	U	0.127	U	0.0563	0.0634	U	0.0634	U	0.0634	U	0.0317	U			
GeoDesign Borings																											
DP-1	11-12.5	Native	07/18/19	0.0304	U	0.0304	U	0.304	U	0.0152	U	0.0152	U	0.0608	U	0.0152	U	0.0304	U	0.0304	U	0.0304	U	0.0304	U		
DP-2	11-12.5	Native	07/18/19	0.0310	U	0.0155	U	0.310	U	0.0310	U	0.0155	U	0.0620	U	0.0155	U	0.0310	U	0.0310	U	0.0310	U	0.0310	U		
DP-2	21-22.5	Native	07/18/19	0.0289	U	0.0144	U	0.289	U	0.0289	U	0.0144	U	0.0578	U	0.0150	J	0.0289	U	0.0289	U	0.0289	U	0.0289	U		
DP-2	25-26.5	Native	07/18/19	0.0374	U	0.0187	U	0.374	U	0.0374	U	0.0187	U	0.0749	U	0.0187	U	0.0374	U	0.0374	U	0.0374	U	0.0374	U		
DP-3	10-11.5	Native	07/18/19	0.0283	U	0.0141	U	0.283	U	0.0283	U	0.0141	U	0.0565	U	0.0141	U	0.0283	U	0.0283	U	0.0283	U	0.0283	U		
DP-4	11.5-13	Native	07/19/19	0.0287	U	0.0144	U	0.287	U	0.0287	U	0.0144	U	0.0575	U	0.0144	U	0.0287	U	0.0287	U	0.0287	U	0.0287	U		
DP-5	10-11.5	Native	07/19/19	0.0312	U	0.0156	U	0.312	U	0.0312	U	0.0156	U	0.0623	U	0.0156	U	0.0312	U	0.0312	U	0.0312	U	0.0312	U		
DP-5	15-16.5	Native	07/19/19	0.0329	U	0.0164	U	0.329	U	0.0329	U	0.0164	U	0.0657	U	0.0164	U	0.0329	U	0.0329	U	0.0329	U	0.0329	U		
DP-6	12-13.5	Native	07/19/19	0.0276	U	0.0138	U	0.276	U	0.0276	U	0.0138	U	0.0553	U	0.0138	U	0.0276	U	0.0276	U	0.0276	U	0.0276	U		
DP-7	11.5-13	Native	07/19/19	0.0259	U	0.0129	U	0.259	U	0.0259	U	0.0129	U	0.0518	U	0.0129	U	0.0259	U	0.0259	U	0.0259	U	0.0259	U		
DP-8	11.5-13	Native	07/19/19	0.0301	U	0.0301	U	0.301	U	0.0301	U	0.0301	U	0.0602	U	0.0151	U	0.0301	U	0.0301	U	0.0301	U	0.0301	U		
DP-9	11-12.5	Native	07/19/19	0.0318	U	0.0318	U	0.318	U	0.0318	U	0.0318	U	0.0635	U	0.0159	U	0.0318	U	0.0318	U	0.0318	U	0.0318	U		
DP-10	6-7.5	Native	07/19/19	0.0324	U	0.0324	U	0.324	U	0.0324	U	0.0324	U	0.0648	U	0.0162	U	0.0324	U	0.0324	U	0.0324	U	0.0324	U		
DP-11	6-7.5	Fill	07/19/19	0.0326	U	0.0326	U	0.831		0.0326	U	0.0326	U	0.0652	U	0.0978		0.0326	U	0.0326	U	0.0326	U	0.0652	U	0.0482	
DP-11	10-11.5	Native	07/19/19	0.0262	U	0.0131	U	0.262	U	0.0262	U	0.0131	U	0.105	U	0.0131	U	0.0262	U	0.0262	U	0.0262	U	0.0262	U	0.0131	U
DP-12	5-6.5	Fill	07/19/19	0.0283	U	0.0153	J	0.351	J	0.0283	U	0.0141	U	0.0565	U	0.105		0.0283	U	0.0401	J	0.0571		0.0492	J	0.0922	
DP-12	10-11.5	Native	07/19/19	0.0299	U	0.0149	U	0.299	U	0.0299	U	0.0149	U	0.119	U	0.0149	U	0.0299	U	0.0299	U	0.0299	U	0.0299	U	0.0149	U
DP-13	5-6.5	Fill	07/19/19	0.0390	U	0.0195	J	0.390	U	0.0390	U	0.0390	U	0.0780	U	0.141		0.0390	U	0.0585	J	0.0405	J	0.0468	J	0.0678	
DP-13	10-11.5	Native	07/19/19	0.0338	U	0.0169	U	0.338	U	0.0338	U	0.0169	U	0.135	U	0.0169	U	0.0338	U	0.0338	U	0.0338	U	0.0338	U	0.0169	U
DP-14	0.5-1.5	Fill	07/16/20	0.0290	U	0.0145	U	0.290	U	0.0290	U	0.0145	U	0.0581	U	0.0145	U	0.0290	U	0.0290	U	0.0290	U	0.0290	U	0.0145	U
DP-14	1.5-2.5	Native	07/16/20	0.0293	U	0.0146	U	0.293	U	0.0293	U	0.0146	U	0.0586	U	0.0146	U	0.0293	U	0.0293	U	0.0293	U	0.0293	U	0.0146	U
DP-15	1-2	Fill	07/16/20	0.0294	U	0.0147	U	0.294	U	0.0294	U	0.0147	U	0.0588	U	0.0147	U	0.0294	U	0.0294	U	0.0294	U	0.0294	U	0.0147	U
DP-15	2.5-3.5	Native	07/16/20	0.0250	U	0.0125	U	0.250	U	0.0250	U	0.0125	U	0.0500	U	0.0125	U	0.0250	U	0.0250	U	0.0250	U	0.0250	U	0.0125	U
DP-16	6-7	Native	07/16/20	0.0296	U	0.0148	U	0.296	U	0.0296	U	0.0148	U	0.0591	U	0.0148	U	0.0296	U	0.0296	U	0.0296	U	0.0296	U	0.0148	U
DP-17	0.5-1.5	Fill	07/16/20	0.0320	U	0.0160	U	0.320	U	0.0320	U	0.0160	U	0.0640	U	0.0160	U	0.0320	U	0.0320	U	0.0320	U	0.0320	U	0.0160	U
DP-17	2-3	Native	07/16/20	0.0313	U	0.0157	U	0.313	U	0.0313	U	0.0157	U	0.0626	U	0.0157	U	0.0313	U	0.0313	U	0.0313	U	0.0313	U	0.0157	U
DP-18	2-3	Fill	07/16/20	0.0325	U	0.0163	U	0.325	U	0.0325	U	0.0163	U	0.0651	U	0.0163	U	0.0325	U	0.0325	U	0.0325	U	0.0325	U	0.0163	U
DP-19	0.5-1.5	Fill	07/16/20	0.0318	U	0.0159	U	0.318	U	0.0318	U	0.0159	U	0.0637	U	0.0159	U	0.0318	U	0.0318	U	0.0318	U	0.0318	U	0.0159	U
EPA Portland Harbor CULs ²				NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE	
DEQ JSCS SLVs ³				NE		NE		NE		NE		0.561		0.5		NE		9.2		NE		NE		NE		NE	

<div>TABLE A-3 Summary of Soil Sample Chemical Analytical Results VOCs Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon</div>
<div>Notes: 1. Only detected VOCs are listed. 2. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020 3. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005 J: Estimated result. Result detected below the lowest point of the calibration curve, but above the specified MDL. M-02: Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated. NE: not established U: Not detected. Reporting or detection limit shown. Bolding indicates analyte detection. Shading indicates analyte detection at a concentration greater than regualtory screening level. * Soil represented by this samples was subsequently removed.</div>

TABLE A-4 Summary of Soil Sample Chemical Analytical Results SVOCs Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Boring/ Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	SVOCs EPA Method 8270D-SIM (mg/kg)																							cPAHs (mg/kg)	Total PAHs (mg/kg)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
				Anthracene	Acenaphthene	Acenaphthylene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl)phthalate	Benzyl Alcohol	BEHP	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	PCP	Phenanthrene	Pyrene	1-Methylnaphthalene			2-Methylnaphthalene	Phenol																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Confirmation Soil Samples - Hydraulic Hoist Remedial Excavation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
C1	12	Unknown	03/08/19	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0102 U</

TABLE A-5 Summary of Soil Sample Chemical Analytical Results PCBs Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon														
Boring/ Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	PCBs EPA Method 8082 (mg/kg)								Total PCBs (mg/kg)		
				PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	0	1/2 DL	DL	
K&S Borings														
B-3 - #3*	7	Native	01/09/19	0.0203 U	0.0203 U	0.0203 U	0.0203 U	0.0203 U	0.0203 U	0.109	0.0	0.1699	0.2308	
Confirmation Soil Samples - Hydraulic Hoist Remedial Excavation														
C1	12	Unknown	03/08/19	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0	0.03605	0.0721	
C2	12	Unknown	03/08/19	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0.0103 U	0	0.03605	0.0721	
C3	9	Unknown	03/08/19	0.0109 U	0.0109 U	0.0109 U	0.0109 U	0.0109 U	0.0109 U	0.0339 P-09	0.0339	0.0666	0.0993	
C7	10	Unknown	03/08/19	0.0107 U	0.0107 U	0.0107 U	0.0107 U	0.0107 U	0.0501 P-10	0.0229 P-10	0.0730	0.0998	0.1265	
C8	14	Unknown	03/08/19	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0166 P-10	0.0098 U	0.0166	0.0460	0.0754	
GeoDesign Borings														
DP-1	11-12.5	Native	07/18/19	0.00541 U	0.00541 U	0.00541 U	0.00541 U	0.00541 U	0.00541 U	0.00541 U	0	0.01894	0.03787	
DP-2	11-12.5	Native	07/18/19	0.00546 U	0.00546 U	0.00546 U	0.00546 U	0.00546 U	0.00546 U	0.00546 U	0	0.01911	0.03822	
DP-2	21-22.5	Native	07/18/19	0.00546 U	0.00546 U	0.00546 U	0.00546 U	0.00546 U	0.00942 J	0.00546 U	0.00942	0.02580	0.04218	
DP-3	10-11.5	Native	07/18/19	0.00522 U	0.00522 U	0.00522 U	0.00522 U	0.00522 U	0.00522 U	0.00522 U	0	0.01827	0.03654	
DP-4	11.5-13	Native	07/19/19	0.00544 U	0.00544 U	0.00544 U	0.00544 U	0.00544 U	0.00544 U	0.00544 U	0	0.01904	0.03808	
DP-5	10-11.5	Native	07/19/19	0.00523 U	0.00523 U	0.00523 U	0.00523 U	0.00523 U	0.00523 U	0.00523 U	0	0.01831	0.03661	
DP-6	12-13.5	Native	07/19/19	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0	0.01873	0.03745	
DP-7	11.5-13	Native	07/19/19	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0.00535 U	0	0.01873	0.03745	
DP-8	11.5-13	Native	07/19/19	0.00524 U	0.00524 U	0.00524 U	0.00524 U	0.00524 U	0.00524 U	0.00524 U	0	0.01834	0.03668	
DP-9	11-12.5	Native	07/19/19	0.00537 U	0.00537 U	0.00537 U	0.00537 U	0.00537 U	0.00537 U	0.00537 U	0	0.01880	0.03759	
DP-10	6-7.5	Native	07/19/19	0.00567 U	0.00567 U	0.00567 U	0.00567 U	0.00567 U	0.00567 U	0.00567 U	0	0.01985	0.03969	
DP-11	6-7.5	Fill	07/19/19	0.0549 U	0.0549 U	0.0549 U	0.245 P-10	0.0549 U	1.73 P-10	0.505 P-10	2.48	2.59	2.70	
DP-11	10-11.5	Native	07/19/19	0.00204 U	0.00204 U	0.00204 U	0.00204 U	0.00204 U	0.00204 U	0.00204 U	0	0.00714	0.01428	
DP-12	5-6.5	Fill	07/19/19	0.270 U	0.270 U	0.270 U	2.27 P-10	0.270 U	9.32 P-10	1.69 P-10	13.28	13.8	14.36	
DP-12	10-11.5	Native	07/19/19	0.00203 U	0.00203 U	0.00203 U	0.00203 U	0.00203 U	0.00203 U	0.00203 U	0	0.00711	0.01421	
DP-13	5-6.5	Fill	07/19/19	0.324 U	0.324 U	0.324 U	1.06 P-10	0.324 U	5.05 P-10	0.978 P-10	7.09	7.74	8.38	
DP-13	10-11.5	Native	07/19/19	0.00217 U	0.00217 U	0.00217 U	0.00217 U	0.00217 U	0.00217 U	0.00217 U	0	0.00760	0.01519	
DP-14	0.5-1.5	Fill	07/16/20	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.830 P-10,Q-39, Q-42	0.261 P-10,Q-39, Q-42	1.09	1.20	1.30	
DP-14	1.5-2.5	Native	07/16/20	0.00215 U	0.00215 U	0.00215 U	0.00215 U	0.00215 U	0.00215 U	0.00215 U	0	0.00753	0.0151	
DP-15	1-2	Fill	07/16/20	0.209 U	0.209 U	0.209 U	0.209 U	11.5 P-10	0.209 U	0.938 P-10	12.4	13.0	13.5	
DP-15	2.5-3.5	Native	07/16/20	0.00208 U	0.00208 U	0.00208 U	0.00208 U	0.00208 U	0.00208 U	0.00208 U	0	0.00728	0.01456	
DP-16	6-7	Native	07/16/20	0.00207 U	0.00207 U	0.00207 U	0.00207 U	0.00207 U	0.00207 U	0.00207 U	0	0.00725	0.01449	
DP-17	0.5-1.5	Fill	07/16/20	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.0287	0.00230 U	0.0287	0.0356	0.0425	
DP-17	2-3	Native	07/16/20	0.00242 U	0.00242 U	0.00242 U	0.00242 U	0.00242 U	0.00242 U	0.00242 U	0	0.00847	0.01694	
DP-18	2-3	Fill	07/16/20	0.00246 U	0.00246 U	0.00246 U	0.00246 U	0.00246 U	0.00246 U	0.00246 U	0	0.00861	0.01722	
DP-19	0.5-1.5	Fill	07/16/20	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0.00230 U	0	0.00805	0.01610	
EPA Portland Harbor CULs ¹				NE	NE	NE	NE	NE	NE	NE	0.009	0.009	0.009	
DEQ JSCS SLVs ²				0.530	NE	NE	NE	1.5	0.300	0.200	0.00039	0.00039	0.00039	
Notes: 1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020 2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005 NE: not established P-10: Result estimated due to the presence of multiple PCB Arochlors and/or matrix interference. Q-39: Results for sample duplicate are significantly higher than the sample results. The duplicate results in QC section of the report. Q-42: Matrix spike and/or duplicate analysis was performed on this sample. Percent recovery or RPD for this analyte is outside the laboratory control limits. U: Not detected. Reporting or detection limit shown. Bolding indicates analyte detection. Shading indicates analyte detection at a concentration greater than regulatory screening level. Italics indicate detection limit is greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs. * Soil represented by this samples was subsequently removed.														

TABLE A-6
Summary of Soil Sample Chemical Analytical Results
Total Metals
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Boring/ Sample I.D.	Sample Depth (feet BGS)	Fill or Native	Sample Date	Total Metals EPA Method 6020A (mg/kg)													
				Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
DP-1	11-12.5	Native	07/18/19	--	2.48	102	--	0.359	11.0	--	2.50	0.0452 U	--	0.565 U	0.113 U	--	--
DP-2	11-12.5	Native	07/18/19	--	2.56	61.4	--	0.357	9.23	--	2.17	0.0441 U	--	0.552 U	0.110 U	--	--
DP-3	10-11.5	Native	07/18/19	--	2.20	61.4	--	0.297	8.36	--	2.09	0.0639 J	--	0.559 U	0.112 U	--	--
DP-4	11.5-13	Native	07/19/19	--	2.55	59.9	--	0.381	9.53	--	2.41	0.0435 U	--	0.544 U	0.109 U	--	--
DP-5	10-11.5	Native	07/19/19	--	2.39	67.4	--	0.383	10.4	--	2.62	0.0465 U	--	0.581 U	0.116 U	--	--
DP-10	6-7.5	Native	07/19/19	0.619 U	2.12	75.7	0.272	0.362	11.5	14.1	3.42	0.0495 U	17.0	0.619 U	0.124 U	0.124 U	39.3
DP-11	6-7.5	Fill	07/19/19	6.74	51.3	--	0.111 U	1.05	201	2,410	480	14.9	10.3	0.554 U	0.315	0.111 U	1,650
DP-11	10-11.5	Native	07/19/19	0.576 U	1.84	--	0.280	0.115 U	6.49	10.7	1.96	0.0461 U, H-06	12.0	0.576 U	0.115 U	0.115 U	26.3
DP-12	5-6.5	Fill	07/19/19	102	172	--	0.109 U	1.81	212	4,240	1,110	36.0	24.6	0.546 U	0.215 J	0.109 U	2,790
DP-12	10-11.5	Native	07/19/19	0.559 U	2.31	--	0.262	0.112 U	9.15	12.2	2.41	0.0447 U, H-06	15.6	0.559 U	0.112 U	0.112 U	33.3
DP-13	5-6.5	Fill	07/19/19	2.26	55.1	--	0.243 J	0.902	114	2,320	475	19.7	23.0	0.643 U	0.136 J	0.129 U	936
DP-13	10-11.5	Native	07/19/19	0.579 U	1.87	--	0.233	0.116 U	7.70	11.1	2.11	0.0463 U, H-06	13.3	0.579 U	0.116 U	0.12 U	29.3
DP-14	0.5-1.5	Fill	07/16/20	1.76	21.0	117	--	0.985	50.8	878	194	4.94	--	0.613 U	0.133	--	609
DP-14	1.5-2.5	Native	07/16/20	0.588 U	1.91	52.5	--	0.118 U	10.9	11.5	2.17	0.0470 U	--	0.588 U	0.118 U	--	33.3
DP-15	1-2	Fill	07/16/20	7.02	123	120	--	1.06	140	4,420	1,180	26.1	--	0.582 U	0.246	--	1,460
DP-15	2.5-3.5	Native	07/16/20	0.540 U	2.68	61.4	--	0.108 U	11.7	15.0	2.85	0.0561	--	0.540 U	0.108 U	--	39.5
DP-16	6-7	Native	07/16/20	0.527 U	2.63	77.9	--	0.105 U	13.0	14.8	2.52	0.0444 J	--	0.527 U	0.105 U	--	42.1
DP-17	0.5-1.5	Fill	07/16/20	0.618 U	3.37	144	--	0.124 U	25.4	44.1	10.7	0.158 B-02	--	0.618 U	0.124 U	--	65.5
DP-17	2-3	Native	07/16/20	0.627 U	2.99	150	--	0.125 U	23.1	23.8	4.21	0.0650	--	0.627 U	0.125 U	--	53.6
DP-18	2-3	Fill	07/16/20	0.666 U	4.19	151	--	0.133 U	21.9	21.9	4.65	0.0615	--	0.666 U	0.133 U	--	55.9
DP-19	0.5-1.5	Fill	07/16/20	0.592 U	3.09	87.8	--	0.118 U	17.2	20.2	3.48	0.0529 J	--	0.592 U	0.118 U	--	46.3
EPA Portland Harbor CULs ¹				NE	3	NE	NE	0.51	NE	359	196	0.085	NE	NE	NE	NE	459
DEQ JSCS SLVs ²				64	7	NE	NE	1	111	149	17	0.07	48.6	2	5	NE	459
Background Concentrations				0.56	8.8	790	2	0.63	76	34	28	0.23	47	0.71	0.82	5.2	180

Notes:
1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020
2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005
B-02: Analyte detected in an associated blank at a level between one-half the MRL and the MRL.
H-06: This sample was analyzed outside the recommended holding time.
NE: not established
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than regulatory screening level.
--: not analyzed

TABLE A-7
Summary of Groundwater Sample Chemical Analytical Results
Petroleum Hydrocarbons
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Sample I.D.	Sample Date	Screen Interval (feet BGS)	Gasoline-Range Hydrocarbons Method NWTPH-Gx (µg/L)	Diesel- and Oil-Range Hydrocarbons Method NWTPH-Dx (µg/L)	
				Diesel-Range	Oil-Range
DP-1W	07/18/19	20 - 30	50.0 U	94.3 U	189 U
DP-2W	07/18/19	20 - 30	50.0 U	94.3 U	189 U
DP-3W	07/18/19	25 - 35	58.8	94.3 U	189 U
DP-14W	07/16/20	24 - 34	50.0 U	96.2 U	192 U
DP-15W	07/16/20	20 - 35	50.0 U	96.2 U	192 U
DP-16W	07/16/20	20 - 30	50.0 U	96.2 U	192 U
DP-16W-DUP	07/16/20	20 - 30	50.0 U	98.0 U	196 U
DP-17W	07/16/20	20 - 35	50.0 U	96.2 U	192 U
DP-18W	07/16/20	19.5 - 34.5	50.0 U	96.2 U	192 U
DP-19W	07/16/20	20 - 35	50.0 U	96.2 U	192 U
EPA Portland Harbor CULs ¹			NE	NE	NE
DEQ JSCS SLVs ²			NE	NE	NE

Notes:

1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020

2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005

NE: not established

U: Not detected. Reporting or detection limit shown.

Bolding indicates analyte detection.

TABLE A-8 Summary Groundwater Sample Chemical Analytical Results VOCs Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon								
Sample I.D.	Sample Date	Screen Interval (feet BGS)	VOCs ¹ EPA Methods 8260C and 8260C-SIM (µg/L)					
			cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	MTBE	PCE	TCE
DP-1W	07/18/19	20 - 30	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.601	0.0100 U
DP-2W	07/18/19	20 - 30	1.49	0.0181 J	0.0500 U	0.0100 U	10.5	1.86
DP-3W	07/18/19	25 - 35	0.651	0.0100 U	0.0500 U	0.0100 U	16.6	0.909
DP-14W	07/16/20	24 - 34	3.18	0.0104 J	0.0818 J	0.0100 U	1.71	2.06
DP-15W	07/16/20	20 - 35	0.0200 U	0.0100 U	0.0545 J	0.0100 U	0.0465	0.0200 U
DP-16W	07/16/20	20 - 30	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0100 U	0.0100 U
DP-16W-DUP	07/16/20	20 - 30	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0100 U	0.0100 U
DP-17W	07/16/20	20 - 35	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0100 U	0.0100 U
DP-18W	07/16/20	19.5 - 34.5	0.0100 U	0.0100 U	0.0500 U	0.0100 U	0.0100 U	0.0100 U
DP-19W	07/16/20	20 - 35	0.0100 U	0.0100 U	0.0500 U	0.0215	0.0100 U	0.0100 U
EPA Portland Harbor CULs ²			9.9	NE	7.3	NE	0.24	0.6
DEQ JSCS SLVs ³			61.0	110	7.3	NE	0.12	0.17
<div>Notes:</div> <div>1. Only VOCs detected are shown.</div> <div>2. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020</div> <div>3. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005</div> <div>NE: not established</div> <div>U: Not detected. Reporting or detection limit shown.</div> <div>Bolding indicates analyte detection.</div> <div>Shading indicates analyte detection at a concentration greater than regulatory screening level.</div>								

TABLE A-9
Summary of Groundwater Sample Chemical Analytical Results
SVOCs
Former Automatic Vending Company
5001 North Lagoon Avenue
Portland, Oregon

Sample I.D.	Sample Date	Screen Interval (feet BGS)	SVOCs EPA Method 8270D-SIM (µg/L)																									
			Acenaphthene	Acenaphthylene	Anthracene	Benzyl Alcohol	Di-n-butylphthalate	Bis(2-ethylhexyl)phthalate	Benzoic Acid	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	PCP	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Phenol	Pyrene
DP-1W	07/18/19	20 - 30	0.00935 U	0.00935 U	0.00935 U	0.524	0.187 U	0.187 U	2.08	0.00935 U	0.0140 U	0.0140 U	0.0140 U	0.00935 U	0.0140 U	0.00935 U	0.00935 U	0.00935 U	0.0935 U	0.00935 U	0.00935 U	0.00935 U	0.0187 U	0.0187 U	0.0187 U	0.00976 J	0.207 J	0.00935 U
DP-2W	07/18/19	20 - 30	0.0374 U	0.0374 U	0.0374 U	9.54	0.748 U	0.748 U	4.67 U	0.0374 U	0.0561 U	0.0561 U	0.0561 U	0.0374 U	0.0561 U	0.0374 U	0.0374 U	0.0374 U	0.374 U	0.0374 U	0.0374 U	0.0374 U	0.0748 U	0.0748 U	0.075 U	0.0374 U	0.748 U	0.0374 U
DP-3W	07/18/19	25 - 35	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.189 U	0.189 U	1.18 U	0.00943 U	0.0142 U	0.0142 U	0.0142 U	0.00943 U	0.0142 U	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.00943 U	0.00943 U	0.00943 U	0.0189 U	0.0189 U	0.0189 U	0.0154 J	0.189 U	0.00943 U
DP-14W	07/16/20	24 - 34	0.00935 U	0.00935 U	0.00935 U	0.094 U	0.245 J	0.187 U	1.17 U	0.00935 U	0.0140 U	0.0140 U	0.0140 U	0.00935 U	0.0140 U	0.00935 U	0.00935 U	0.00935 U	0.0935 U	0.00935 U	0.0125 J	0.00935 U	0.0187 U	0.0187 U	0.0226 J	0.0247	0.187 U	0.00936 J
DP-15W	07/16/20	20 - 35	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.189 U	0.189 U	1.18 U	0.00943 U	0.0142 U	0.0142 U	0.0142 U	0.00943 U	0.0142 U	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.00943 U	0.00943 U	0.00943 U	0.0189 U	0.0189 U	0.0189 U	0.00962 J	0.189 U	0.00943 U
DP-16W	07/16/20	20 - 30	0.00952 U	0.00952 U	0.00952 U	0.0952 U	0.190 U	0.190 U	1.19 U	0.00952 U	0.0143 U	0.0143 U	0.0143 U	0.00952 U	0.0143 U	0.00952 U	0.00952 U	0.00952 U	0.0952 U	0.00952 U	0.00952 U	0.00952 U	0.0190 U	0.0190 U	0.0190 U	0.00952 U	0.190 U	0.00952 U
DP-16W-DUP	07/16/20	20 - 30	0.00962 U	0.00962 U	0.00962 U	0.0962 U	0.192 U	0.192 U	1.20 U	0.00962 U	0.0144 U	0.0144 U	0.0144 U	0.00962 U	0.0144 U	0.00962 U	0.00962 U	0.0110 J	0.0962 U	0.00962 U	0.0192 U	0.00962 U	0.0282 J	0.0379 J	0.0192 U	0.0147 J	0.192 U	0.0175 J
DP-17W	07/16/20	20 - 35	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.189 U	0.189 U	1.18 U	0.00943 U	0.0142 U	0.0142 U	0.0142 U	0.00943 U	0.0142 U	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.00943 U	0.00943 U	0.00943 U	0.0189 U	0.0189 U	0.0189 U	0.0094 U	0.189 U	0.00943 U
DP-18W	07/16/20	19.5 - 34.5	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.189 U	0.189 U	1.18 U	0.00943 U	0.0142 U	0.0142 U	0.0142 U	0.00943 U	0.0142 U	0.00943 U	0.00943 U	0.00943 U	0.0943 U	0.00943 U	0.00943 U	0.00943 U	0.0189 U	0.0189 U	0.0189 U	0.0106 J	0.189 U	0.00943 U
DP-19W	07/16/20	20 - 35	0.0124 J	0.00943 U	0.0239	0.0943 U	0.189 U	0.189 U	1.18 U	0.00943 U	0.0142 U	0.0142 U	0.0142 U	0.00943 U	0.0194 J	0.00943 U	0.00943 U	0.00971 J	0.0943 U	0.0488	0.0124	0.00943 U	0.0189 U	0.0189 U	0.0189 U	0.107	0.189 U	0.0499
EPA Portland Harbor CULs ¹			23	NE	0.73	NE	NE	NE	NE	0.0012	0.00012	0.0012	0.0013	NE	NE	0.00130	0.00012	NE	0.03	NE	NE	0.0012	NE	NE	NE	NE	NE	NE
DEQ JSCS SLVs ²			0.2	0.2	0.2	8.6	3.0	2.2	42	0.018	0.018	0.018	0.018	0.2	3.4	0.018	0.018	3.7	0.56	0.2	0.2	0.018	2.1	0.2	0.2	0.2	2,560	0.2

Notes:
1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020
2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005
J: Estimated result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
NE: not established
U: Not detected. Reporting or detection limit shown.
Bolding indicates analyte detection.
Shading indicates analyte detection at a concentration greater than regulatory screening level.
Italics indicate detection limit is greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs.

TABLE A-10 Summary of Groundwater Sample Chemical Analytical Results PCBs Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon													
Sample I.D.	Sample Date	Screen Interval (feet BGS)	PCBs EPA Method 8082 (µg/L)								Total PCBs (µg/L)		
			PCB 1016	PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	0	1/2 DL	DL	
DP-1W	07/18/19	20 - 30	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0	0.0679	0.1358	
DP-2W	07/18/19	20 - 30	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0	0.0665	0.1330	
DP-3W	07/18/19	25 - 35	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0.0190 U	0	0.0665	0.1330	
DP-14W	07/16/20	24 - 34	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0	0.0679	0.1358	
DP-15W	07/16/20	20 - 35	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0.0194 U	0	0.0679	0.1358	
DP-17W	07/16/20	20 - 35	0.0192 U	0.0192 U	0.0192 U	0.0192 U	0.0192 U	0.0192 U	0.0192 U	0	0.0672	0.1344	
EPA Portland Harbor CULs ¹			NE	NE	NE	NE	NE	NE	NE	0.0000064	0.0000064	0.0000064	
DEQ JSCS SLVs ²			0.96	0.034	0.034	0.034	0.034	0.034	0.034	0.0000064	0.0000064	0.0000064	
Notes: 1. Table 17 of EPA’s Record of Decision for the Portland Harbor Superfund Site, updated January 2020 2. Table 3.1 of DEQ’s Portland Harbor Joint Source Control Strategy, dated December 2005 NE: not established U: Not detected. Reporting or detection limit shown. Italics indicate detection limit is greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs.													

TABLE A-11 Summary of Groundwater Sample Chemical Analytical Results Total and Dissolved Metals Former Automatic Vending Company 5001 North Lagoon Avenue Portland, Oregon																			
Sample I.D.	Sample Date	Screen Interval (feet BGS)	Total Metals EPA Method 6020A (ICP-MS) (µg/L)													Dissolved Metals EPA Method 6020A (ICP-MS) (µg/L)			
			Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	Arsenic	Copper	Mercury	Lead
DP-1W	07/18/19	20 - 30	0.500 U	9.61	0.100 U	0.0577 J	0.713 J	10.2	0.720	0.108	8.35	0.500 U	0.100 U	0.100 U	9.10	9.17	–	–	–
DP-2W	07/18/19	20 - 30	0.500 U	1.19	0.100 U	0.0400 U	0.791 J	1.20	0.237	0.0400 U	2.56	0.500 U	0.100 U	0.100 U	4.03	1.15	–	–	–
DP-3W	07/18/19	25 - 35	0.500 U	0.647 J	0.100 U	0.0400 U	0.500 U	0.500 U	0.100 U	0.0400 U	9.49	0.500 U	0.100 U	0.100 U	2.00 U	0.525 J	0.500 U	–	0.100 U
DP-14W	07/16/20	24 - 34	–	1.33	–	0.100 U	–	5.62	0.584	0.0400 U	–	–	–	–	6.56	1.06	1.00 U	0.0400 U	0.100 U
DP-15W	07/16/20	20 - 35	–	1.42	–	0.100 U	–	1.39	0.100 U	0.0400 U	–	–	–	–	4.49	1.64	1.00 U	0.0400 U	0.100 U
DP-16W	07/16/20	20 - 30	–	0.500 U	–	–	–	1.00 U	0.100 U	–	–	–	–	–	–	0.500 U	1.08 J	–	0.100 U
DP-16W-DUP	07/16/20	20 - 30	–	0.500 U	–	–	–	1.09 J	0.100 U	–	–	–	–	–	–	0.500 U	1.00 U	–	0.100 U
DP-17W	07/16/20	20 - 35	–	0.831 J	–	–	–	1.00 U	0.100 U	0.0400 U	–	–	–	–	–	0.873 J	1.00 U	–	0.100 U
DP-18W	07/16/20	19.5 - 34.5	–	0.500 U	–	0.100 U	–	1.00 U	0.100 U	0.0400 U	–	–	–	–	2.00 U	0.500 U	1.00 U	0.0400 U	0.100 U
DP-19W	07/16/20	20 - 35	–	0.924 J	–	–	–	2.07	0.100 U	–	–	–	–	–	–	1.00	1.00 U	–	0.100 U
EPA Portland Harbor CULs ¹			NE	0.018	NE	0.091	11	2.74	0.54	NE	NE	NE	NE	NE	36.5	0.018	2.74	NE	0.54
DEQ JSCS SLVs ²			6	0.045	NE	0.094	100	2.7	0.54	0.77	16	5	0.12	NE	36	0.045	2.7	0.77	0.54
<div>Notes:</div> <div>1. Table 17 of EPA's Record of Decision for the Portland Harbor Superfund Site, updated January 2020</div> <div>2. Table 3.1 of DEQ's Portland Harbor Joint Source Control Strategy, dated December 2005</div> <div>J: Estimated result. Result detected below the lowest point of the calibration curve, but above the specified MDL.</div> <div>NE: not established</div> <div>U: Not detected. Reporting or detection limit shown.</div> <div>Bolding indicates analyte detection.</div> <div>Shading indicates analyte detection at a concentration greater than regulatory screening level.</div> <div>Italics indicate detection limit is greater than EPA Portland Harbor CULs and/or DEQ JSCS SLVs.</div> <div>--: not analyzed</div>																			

APPENDIX B

2526

SANITARY ONLY #79195

FORM W 271

12 60

CITY OF PORTLAND, OREGON
DEPARTMENT OF PUBLIC WORKS
BUREAU OF MAINTENANCE
SEWER BRANCH

Pmt. No. 79194

Date Feb. 18, 1963

Location 5001 N. Lagoon Ave.

Between

Addition Sec. 20, 1N. 1E.

Lot Part of TL 14~~th~~

Applicant Temp Control Corp.

Remarks 79194-All measurements
& Inspections by Raz. Construction Inspector. 8" C.S.P. 61' W
of MH at N. Ballast St. 9' deep. 79195-Meas. & Insp. by Raz,
Constr. Insp. 8" C.S.P. 236' W of MH at N. Ballast St. 9' deep.

Inspected

19

By

Book

11

Page

23

New

Repair

STORM ONLY. SECT

N. CHANNEL AVE

344'
30' S.W. corner
SANITARY

842.5' P
1340

90'

173.95'

264.5'

277.25' W
SEC. 20

TIN, RILE, W.M.

(93)

277.25'

277.25'

(72)

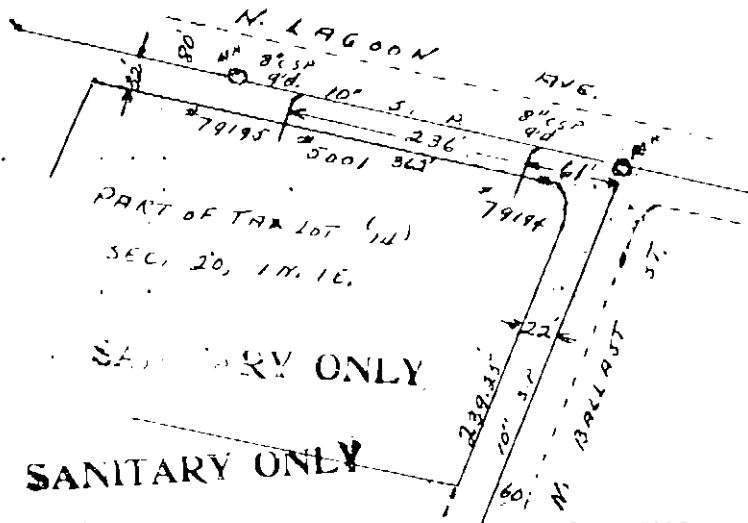
100.5'

N. LAGOON

254.25'

239.25'

N. BALLAST ST



2526

STORM ONLY

CITY OF PORTLAND, OREGON
DEPARTMENT OF PUBLIC WORKS
BUREAU OF MAINTENANCE
SEWER BRANCH

Pmt. No. 79196 -7

Date 3-7-63 19

Location 5001 N. Lagoon Ave.

Between

Addition Sec. 20, 1N., 1E.

Lot Pt. T. L. '14' Blk. - -

Applicant Temp-Control Corp.

Remarks 10" C.S.P. to

riser. 126' east of MH in front of property. 8' at riser
6' deep at propline.

79197: 10" CSP to riser 300' east of MH to the west of
property. 8' deep at riser. 6' at property line.

Inspected 3-7-63 19 By P. Grossi

Book 11 Page 21 New Repair

A. N. G

MNF

196004

AVE.

5-19-64

STOKED

تک

10" C 10
8" D T 10
RISER

500/

PART OF TAX LOT (14)

SEC. 20, 1N, 1E.

1076 1-1
844 52
7070000
11155

10-50-51

400

2526

FORM W 271-1

(7-83)

SEWER DAILY SLIP
 CITY OF PORTLAND, OREGON
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF MAINTENANCE
 SEWER BRANCH

Pmt. No. 86598

Date Dec. 4, 1968

Location 5001 N. Lagoon Ave.

Between N. Channel Ave.

Addition TL 12 and 93 Sec. 20, 1N1E4

Blk.

Applicant Donohue & Fleskes Corp. Remarks

8" CSP to maint. Tap 344' southeast of MH to the
 northwest. 13' deep at curb. Storm only.

Inspected 12-13-68

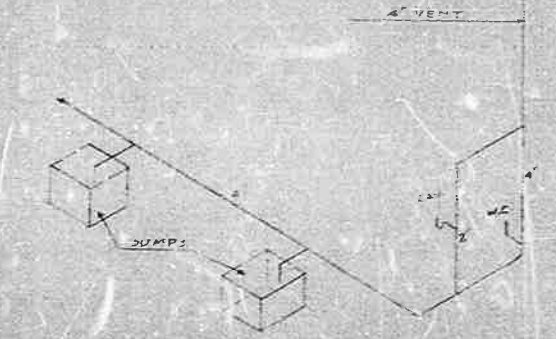
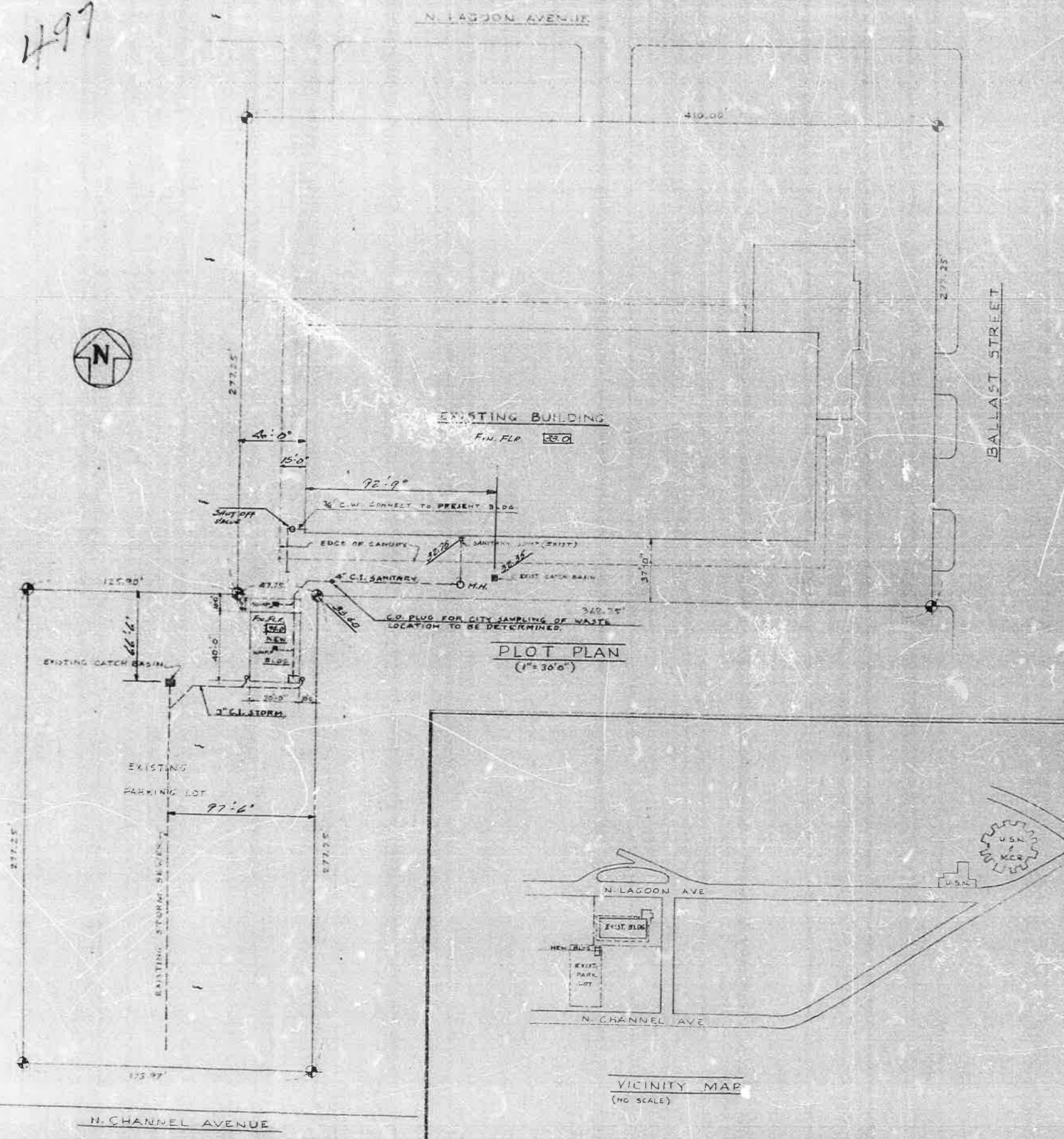
19

By Grossi

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New ☒Repair ☐

1497



ISOMETRIC OF SANITARY
(NO SCALE)

GENERAL NOTES

- LOADS & WORKING STRESSES**
- ROOF LIVE LOAD - 25 PSF
 - WIND LOAD - 20 PSF
 - SOIL BEARING - 1500 PSF
 - CONCRETE (f_c) - 2500 PSI
 - STEEL REIN. (f_y) - 20000 PSI
 - STEEL FRAMING (f_y) - 50000 PSI
 - STEEL SHEETING (f_y) - 33000 PSI
 - WOOD BEAMS & POSTS - 1450F NO. 1
 - DECKING STUDS & PLATES - 1100F NO. 2
 - HANDRAIL & POSTS - 1450F NO. 1
- STEEL BUILDING TO BE AS MANUFACTURED BY CUSTOM ROLLED CORRUGATED METALS COMPANY
- ERECTION DETAILS AND STRESS ANALYSIS OF STEEL BUILDING TO BE FURNISHED BY M.E.R.
- ALL WOOD PLATES IN CONTACT WITH CONCRETE TO BE PRESERVED TREATED WITH AN APPROVED PRESERVATIVE.
- WOOD PLATES TO BE SECURED TO CONCRETE WITH 1/2" MACHINE BOLTS USING 2 BOLTS PER PIECE
- WOOD PLATES RESTING ON CONCRETE TO BE SEPARATED THEREFROM BY SHEET METAL OR ASPHALT ROOFING FELT AND HELD IN PLACE BY 1/2" x 1/2" STEEL PINS EXTENDING 3" INTO POST
- TOILET ROOM WALLS TO BE INSULATED WITH 2" THICK FIBERGLASS BLANKET INSULATION
- No increase in employees.
- F-1 occupancy - Truck Service building
- No painting, Motor Repair, or other hazardous work.

ACCEPTABLE
THIS PLAN HAS BEEN
REVIEWED AND MEETS
THE REQUIREMENTS OF
THE PORT OF PORTLAND
EXCEPTIONS ARE NOTED
BY *[Signature]* 1/23/73



TRUCK SERVICE BUILDING FOR CANTEN COMPANY OF OREGON SWAN ISLAND - PORTLAND, OREGON			
LESLIE E. DOOLE - CONSULTING ENGINEER 4606 S.W. 53RD AVENUE - PORTLAND, OREGON			
JOB NO.	DATE	DRAWN BY	SHEET NO.
	1-26-73	P	1

APPENDIX C

Tuesday, January 26, 2021



Plant Receiving Manifest

Profile #: 455304

Manifest ID 128834

Generator Name: BCS America

Address: 5001 N Lagoon
Portland, OR, 97217

Wash out?: Yes

**Same as
Transporter?** Yes

Billing Firm: Stratus Corporation

**Waste Description
(choose one):** Oil/Water

Unit: Pounds

Initial Weight (lbs): 51620

Final Weight (lbs): 42440

Solids?: No

Total Weight (lbs): 9180

Color: Black

Odor None

pH: 7

Liquid Phase: 90

Sludge/Solids: 10

Total Gallons: 991.84

Total Solids (Tons): 0.46

**Method of
Shipment:** Vac Truck

Weight Ticket:



Manifest_2021012...

**Does This Manifest Need a Change
Order?:** No

**Relinquished By
(Driver Signiture):** 

Driver Name: Dennis

Truck License #: 62

PPV Technician: Michael Douglas Shockley

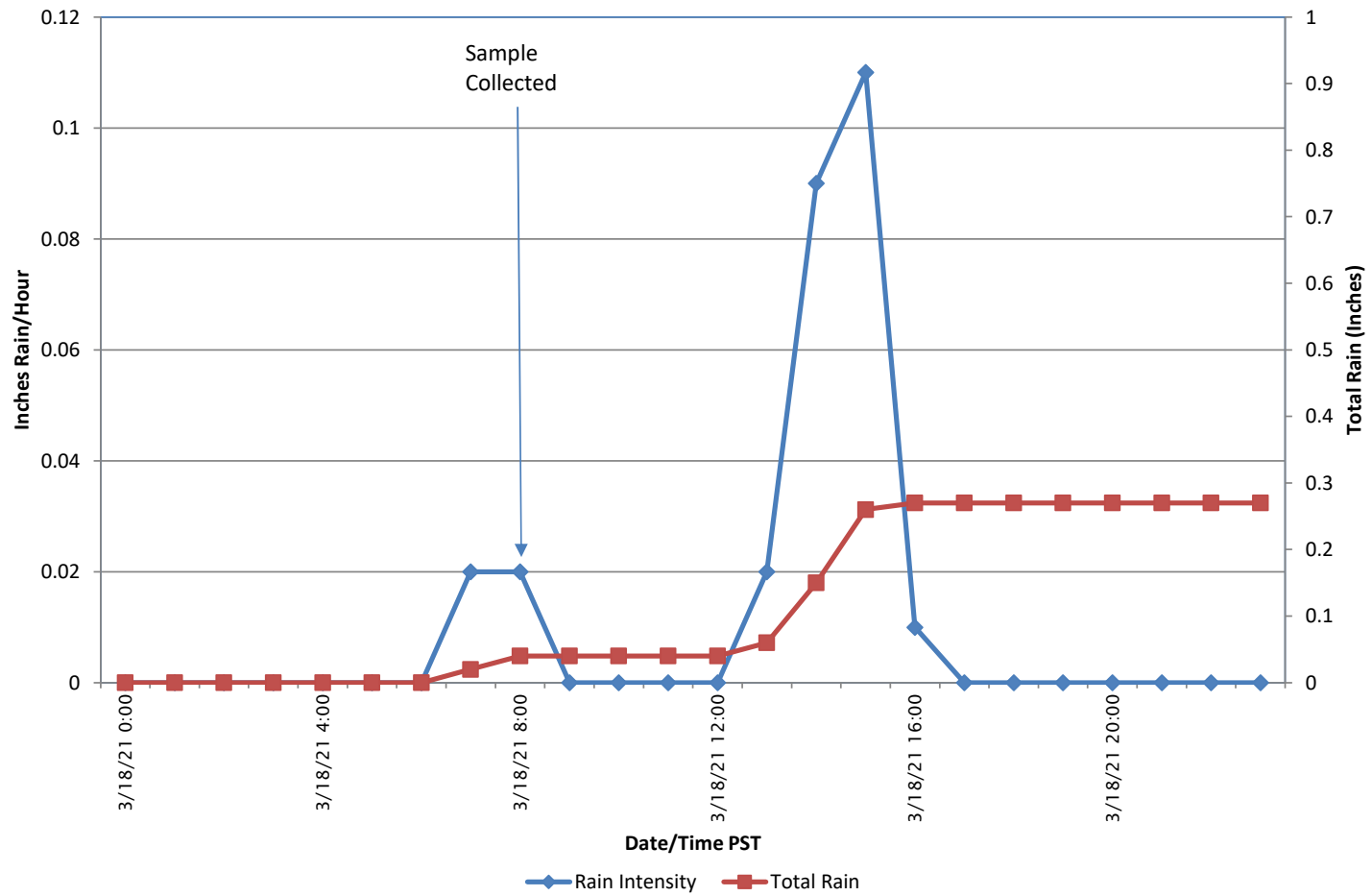
PPV Acceptance: Approved

Date Tuesday, January 26, 2021

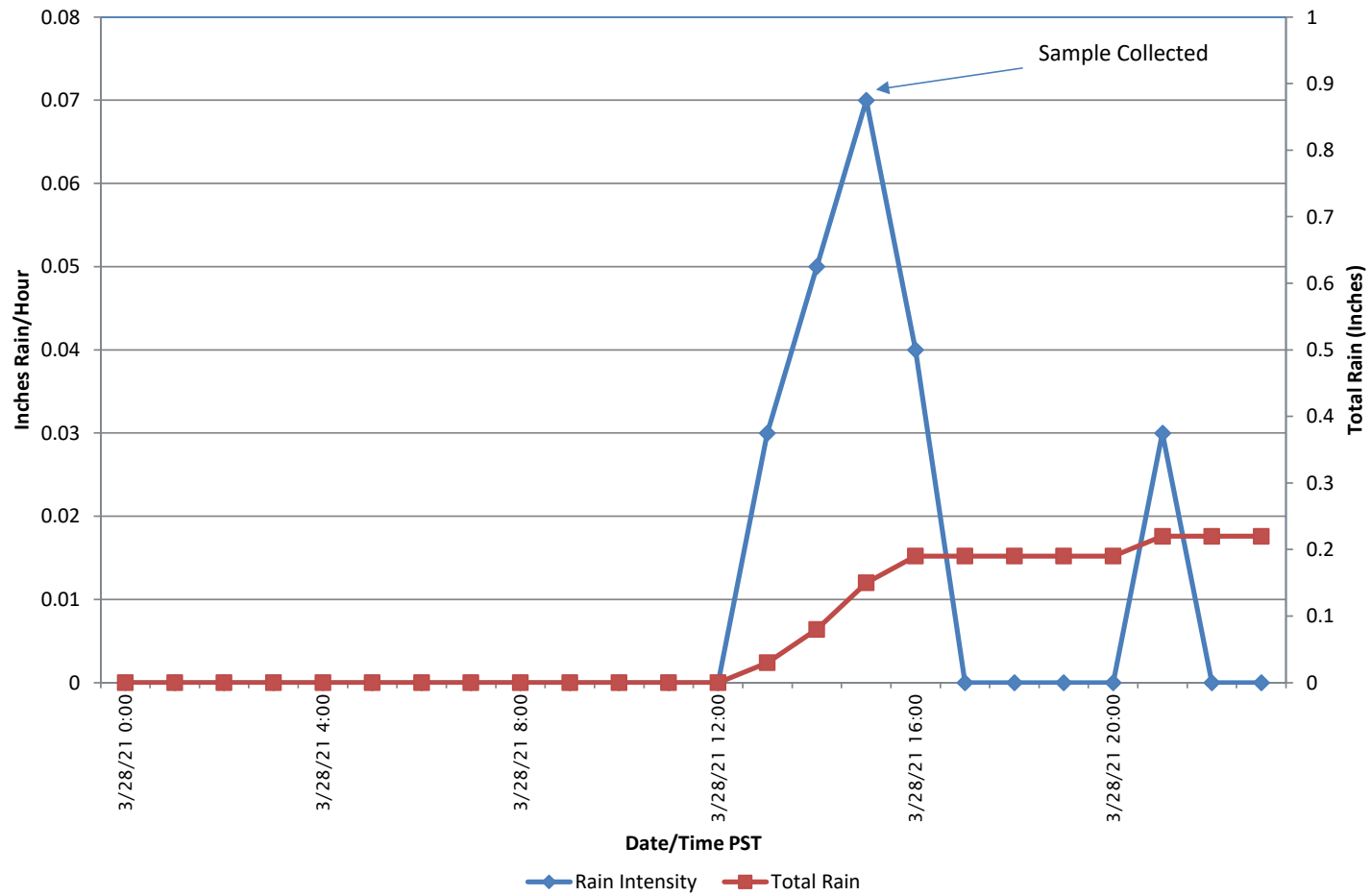
Time 7:08 AM

APPENDIX D

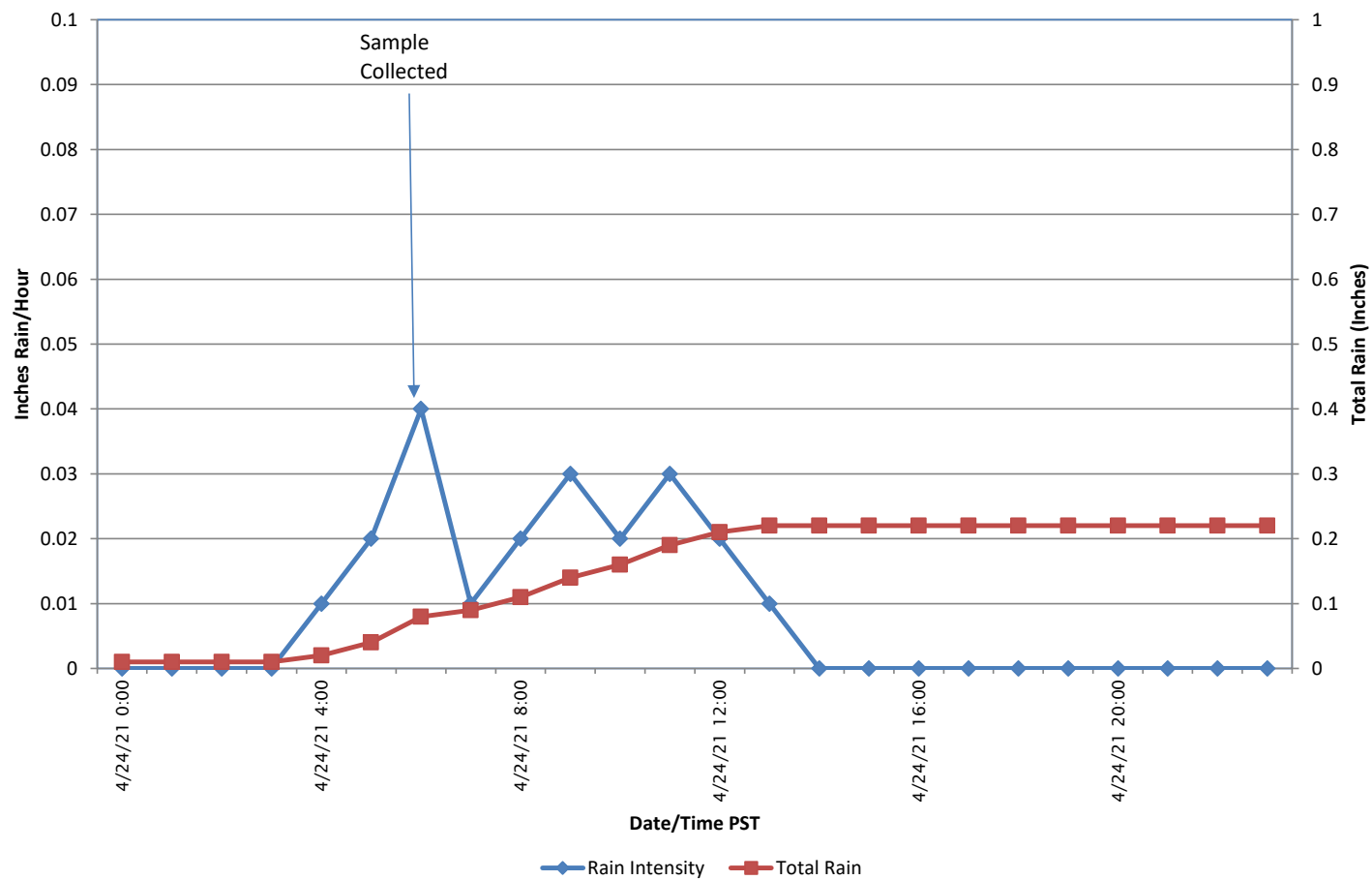
March 18, 2021 Hydrograph, Swan Island Rain Gauge Portland, Oregon



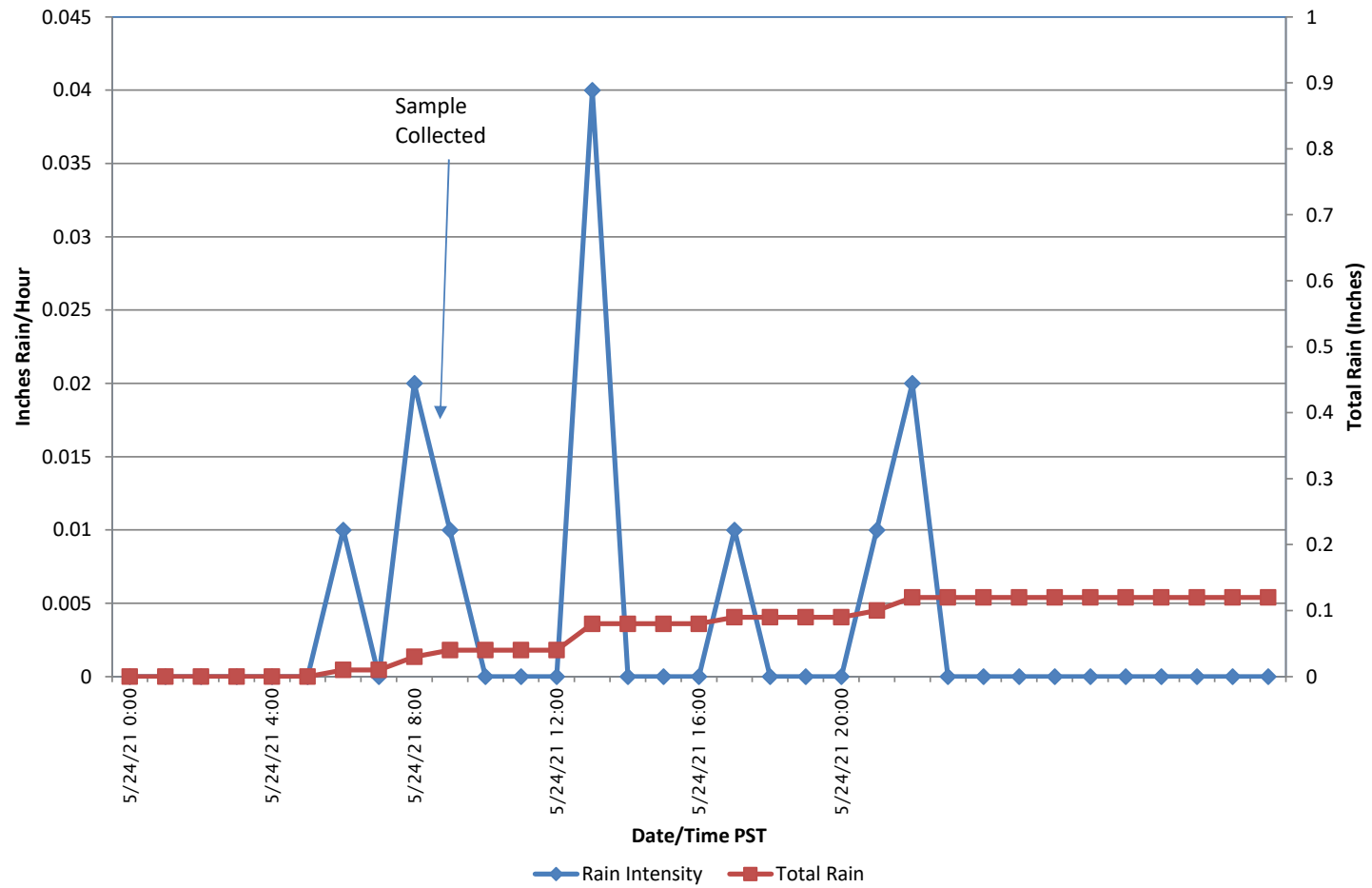
March 28, 2021 Hydrograph, Swan Island Rain Gauge Portland, Oregon



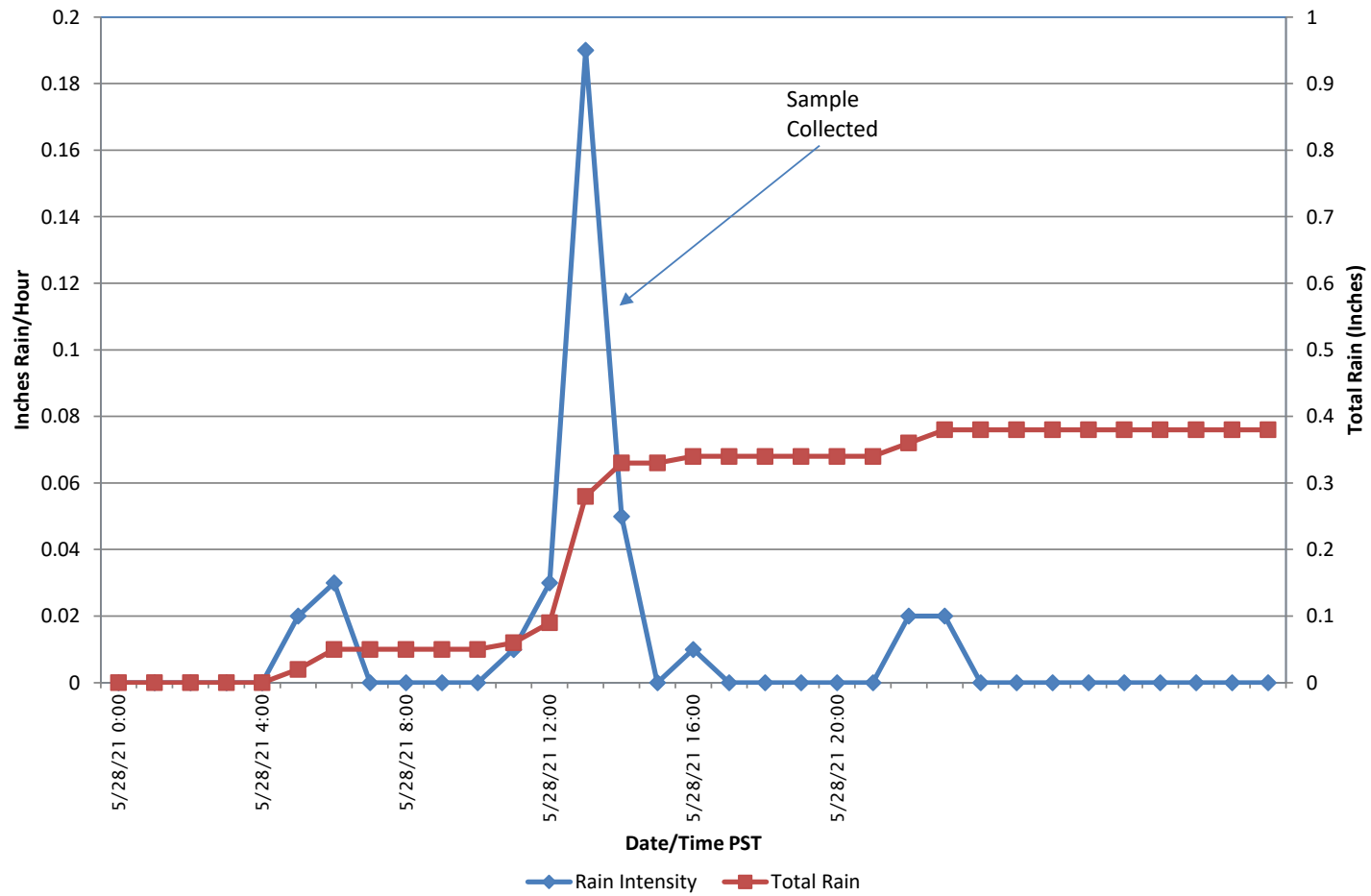
April 24, 2021 Hydrograph, Swan Island Rain Gauge Portland, Oregon



May 24, 2021 Hydrograph, Swan Island Rain Gauge Portland, Oregon

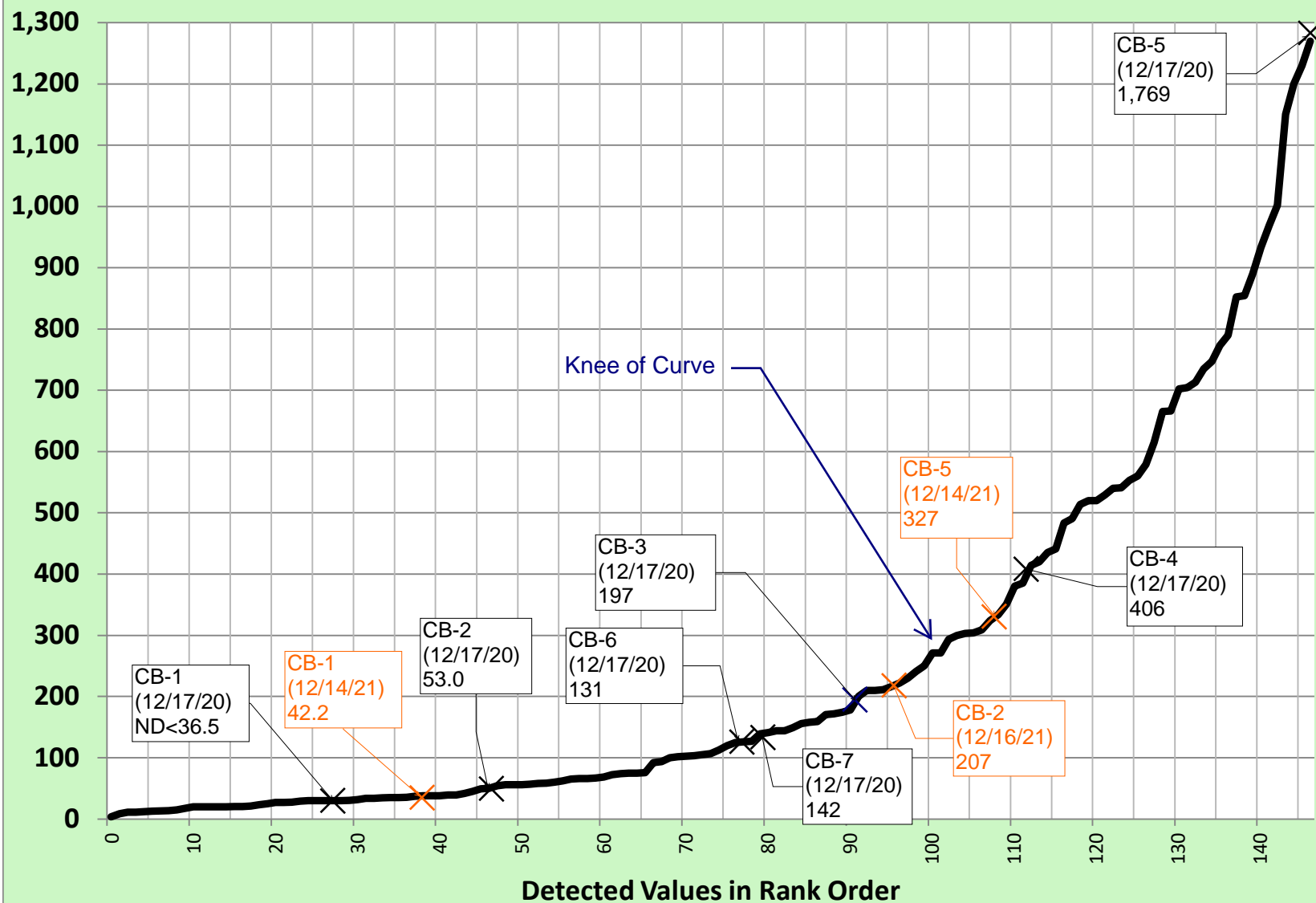


May 28, 2022 Hydrograph, Swan Island Rain Gauge Portland, Oregon

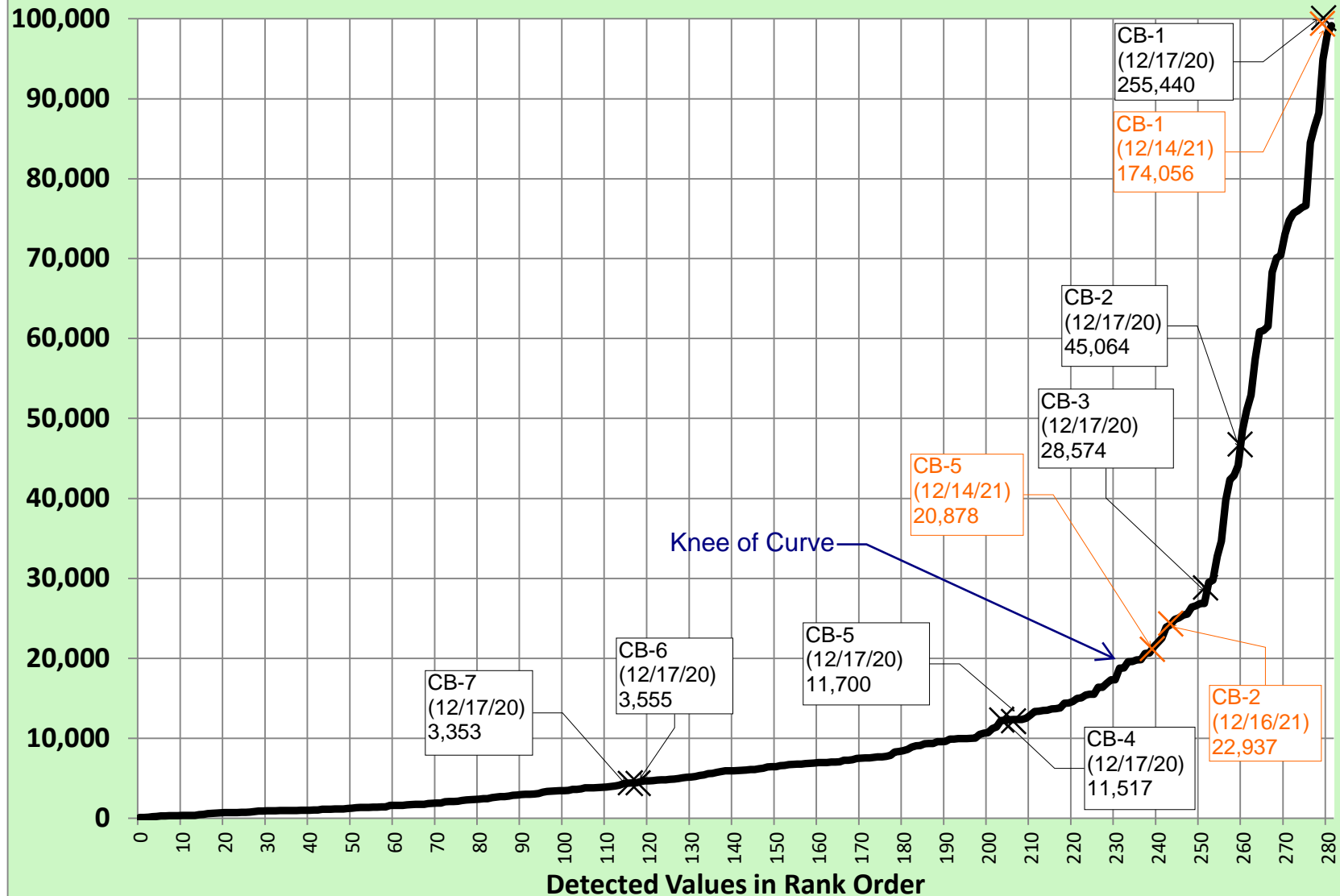


APPENDIX E

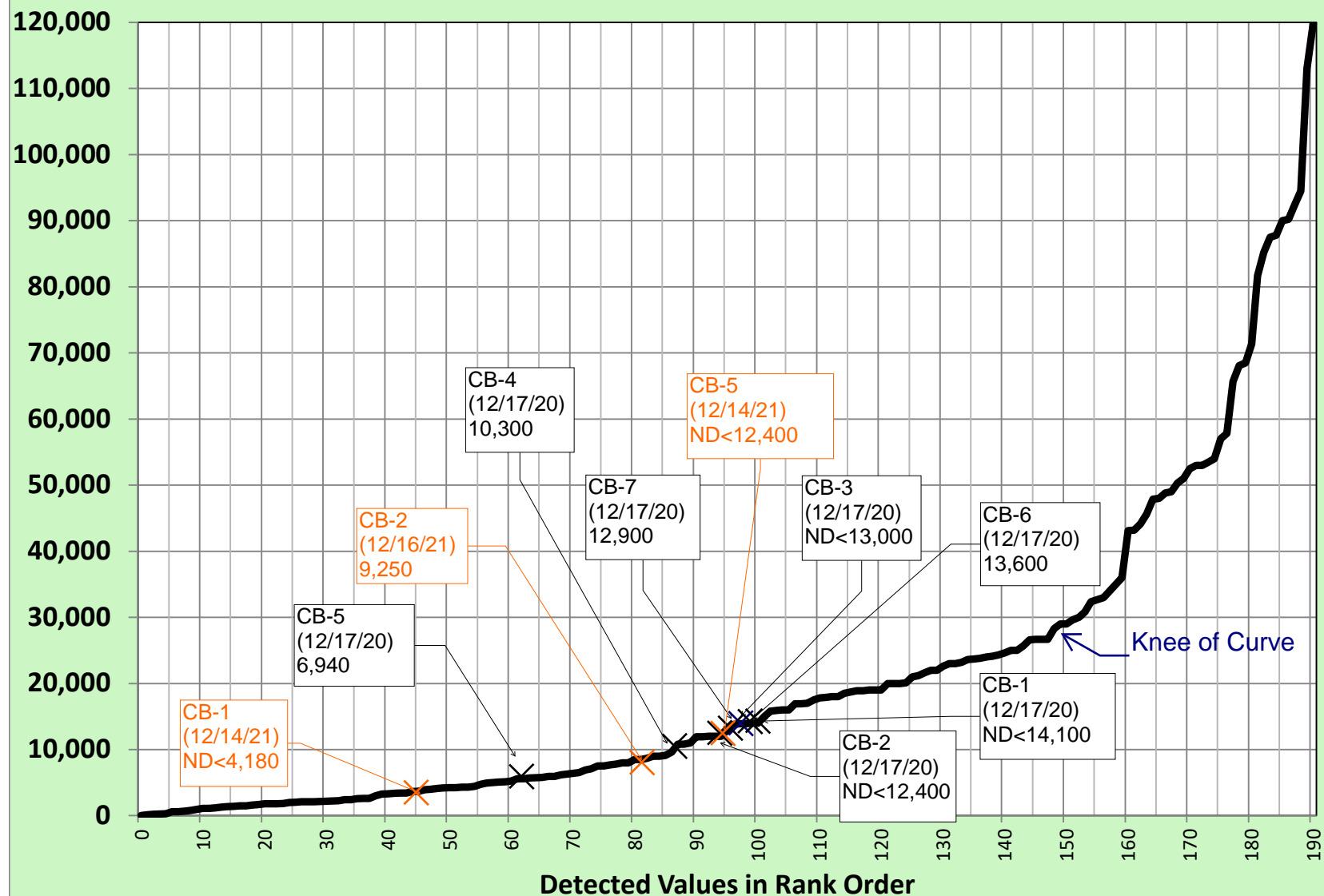
Total PCBs (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



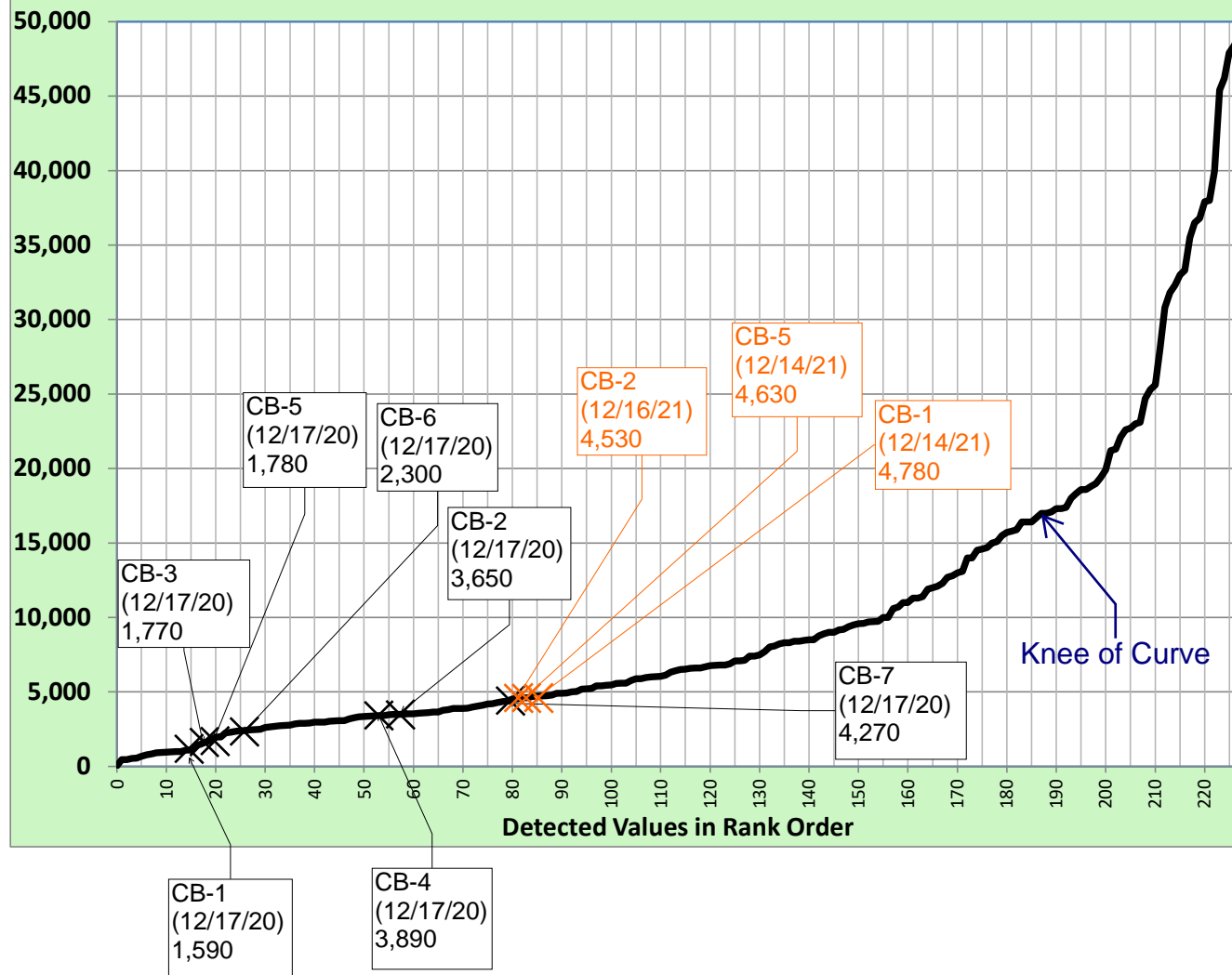
Total PAHs (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



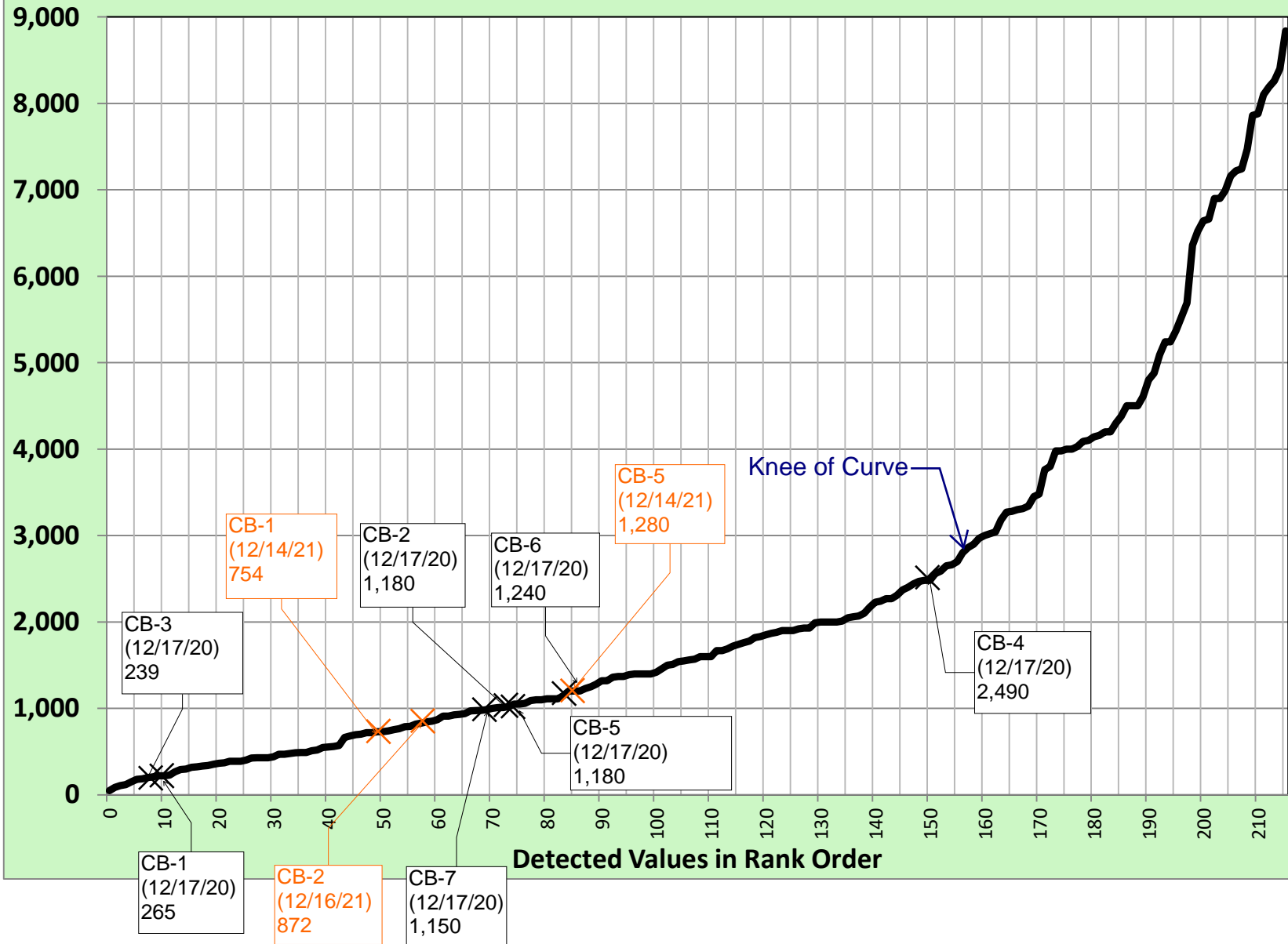
Bis(2-Ethylhexyl)phthalate in Stormwater Solids at Portland Harbor Heavy Industrial Sites



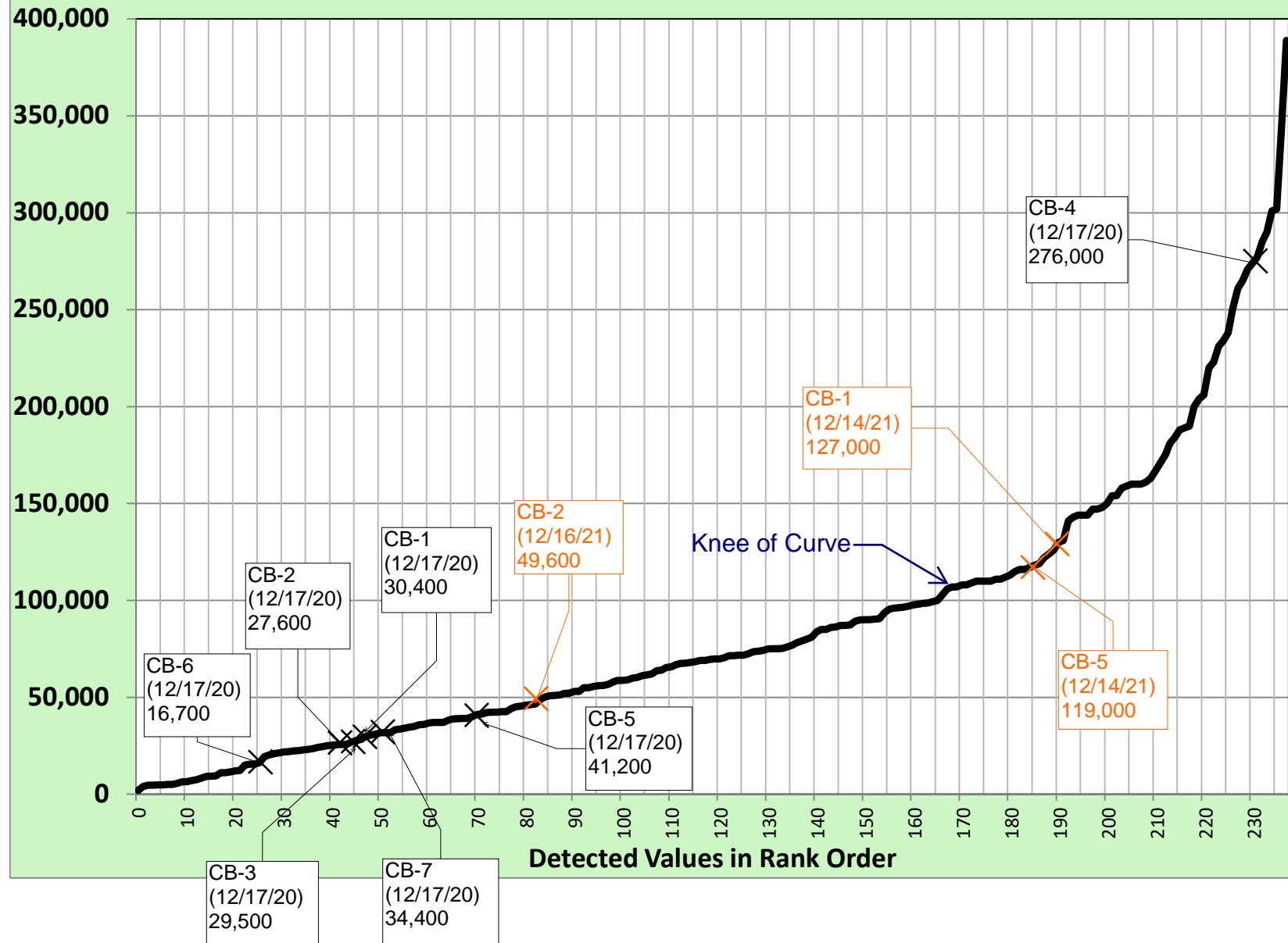
Arsenic (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



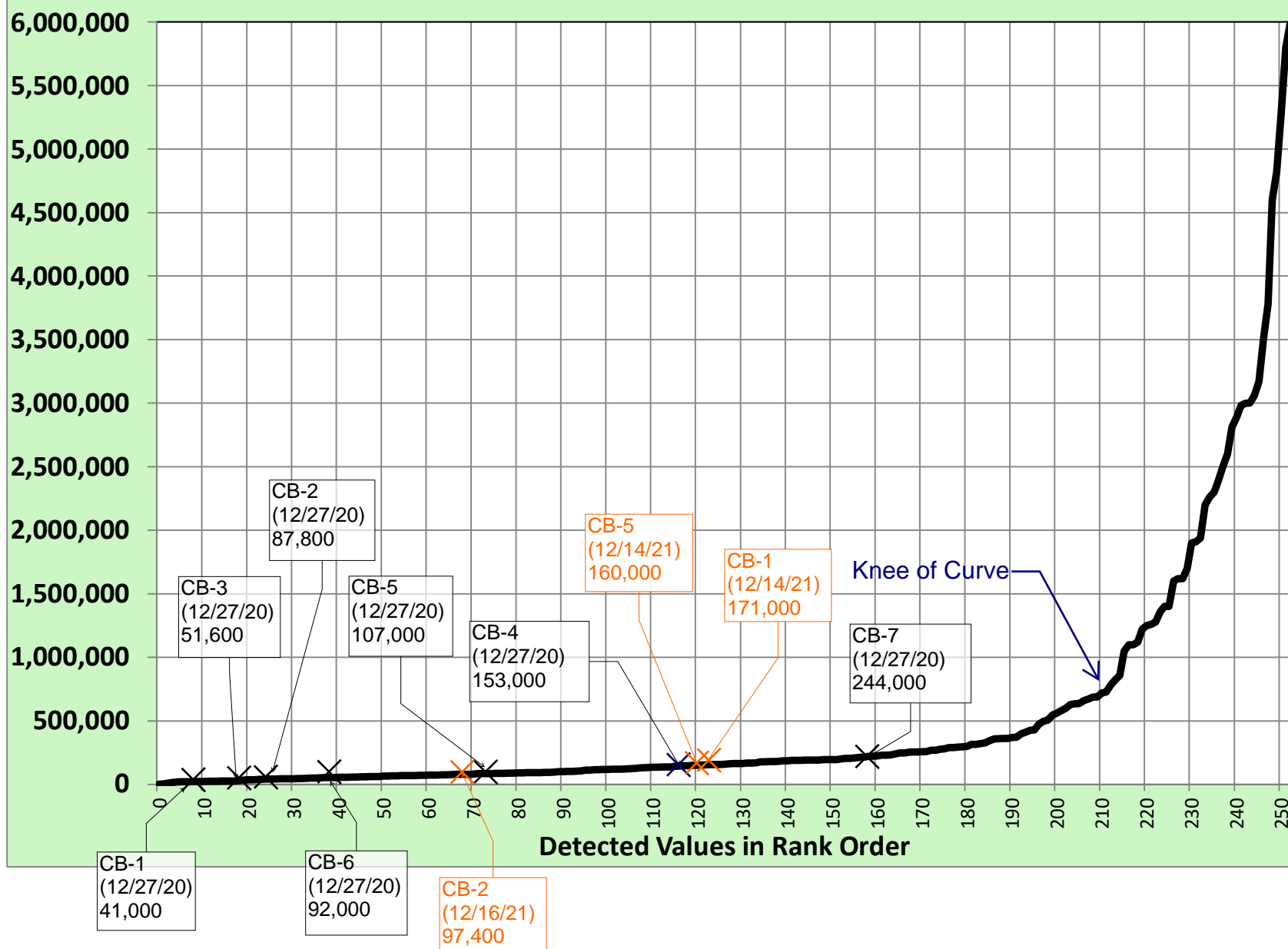
Cadmium (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



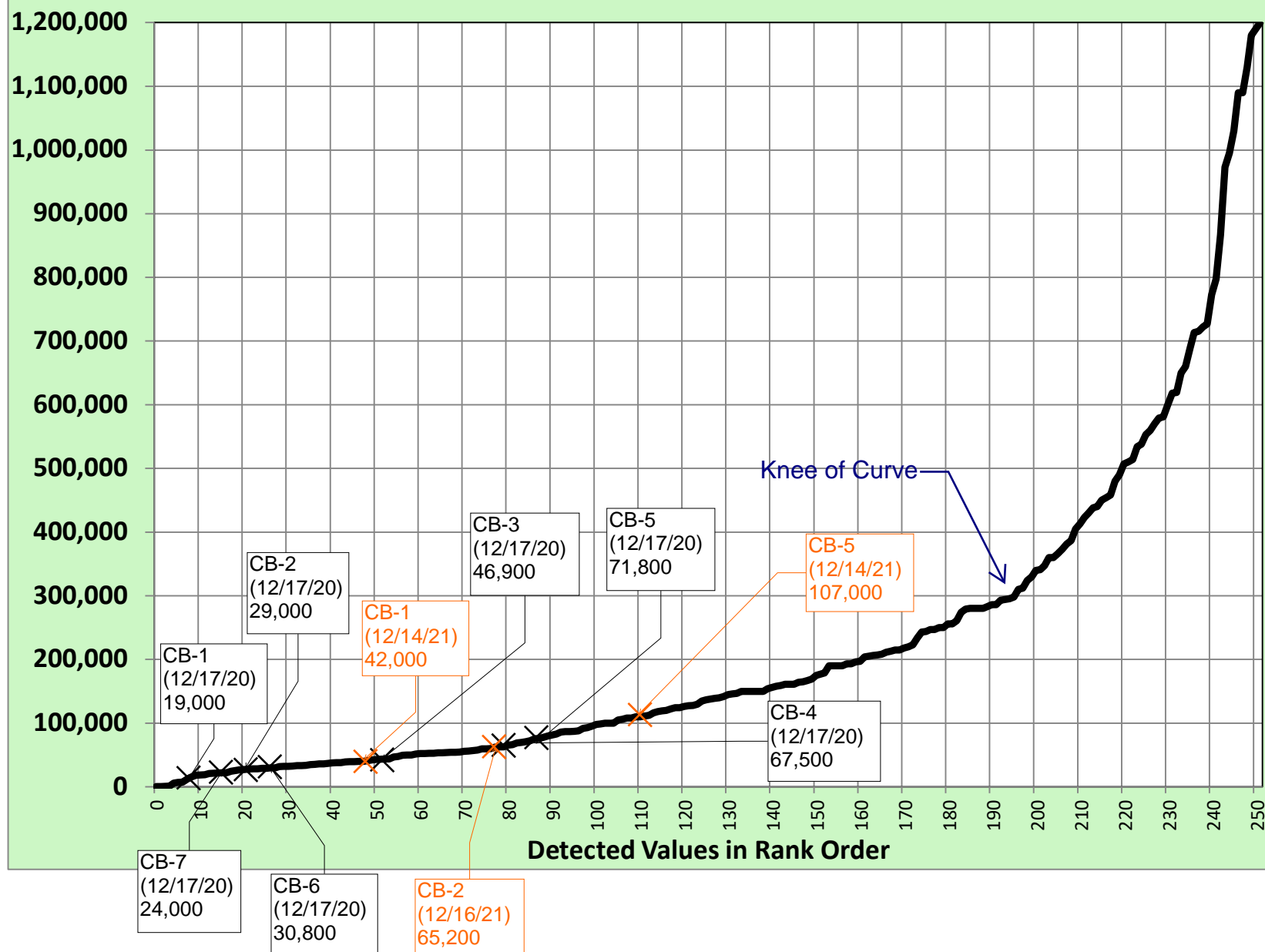
Chromium (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



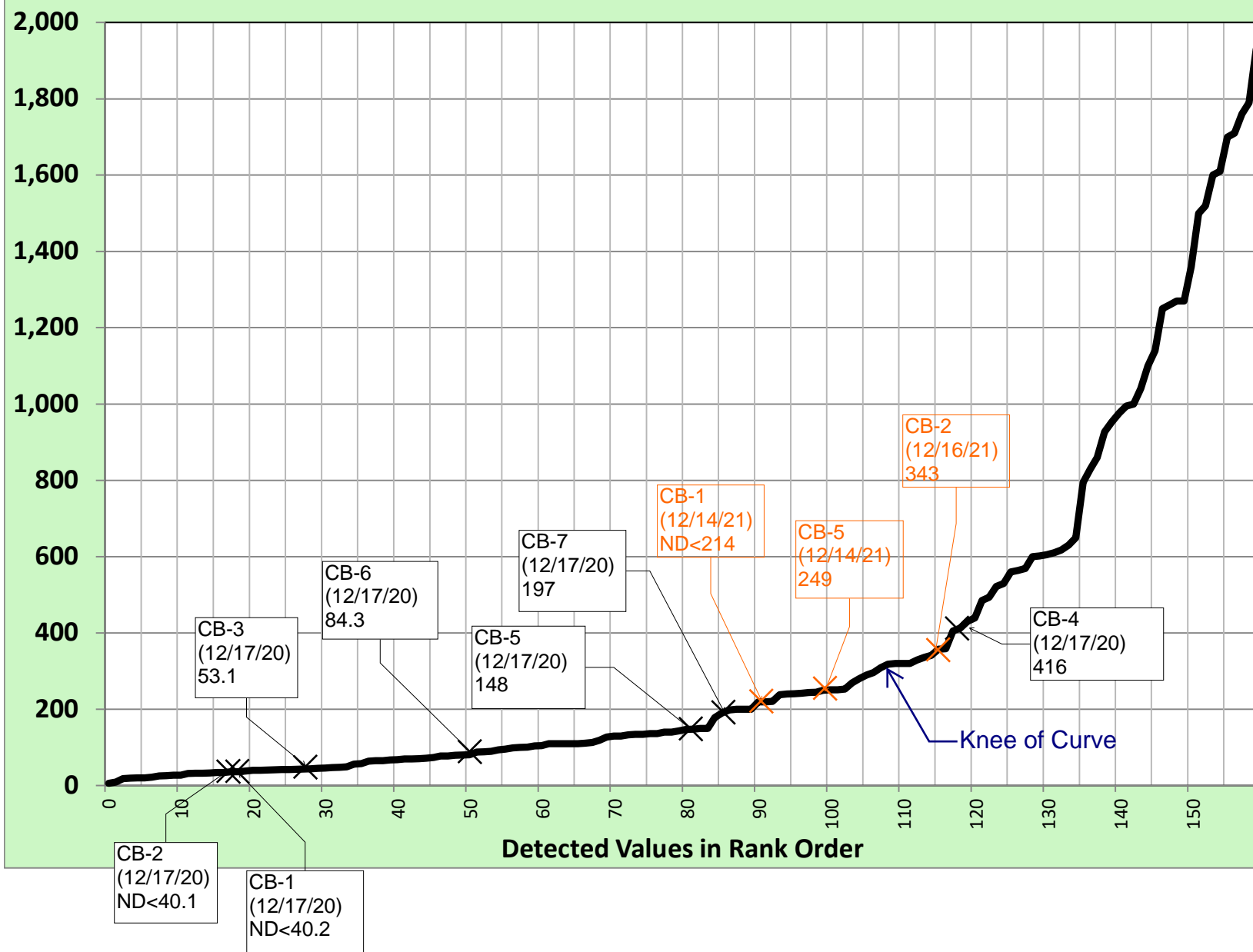
Copper (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



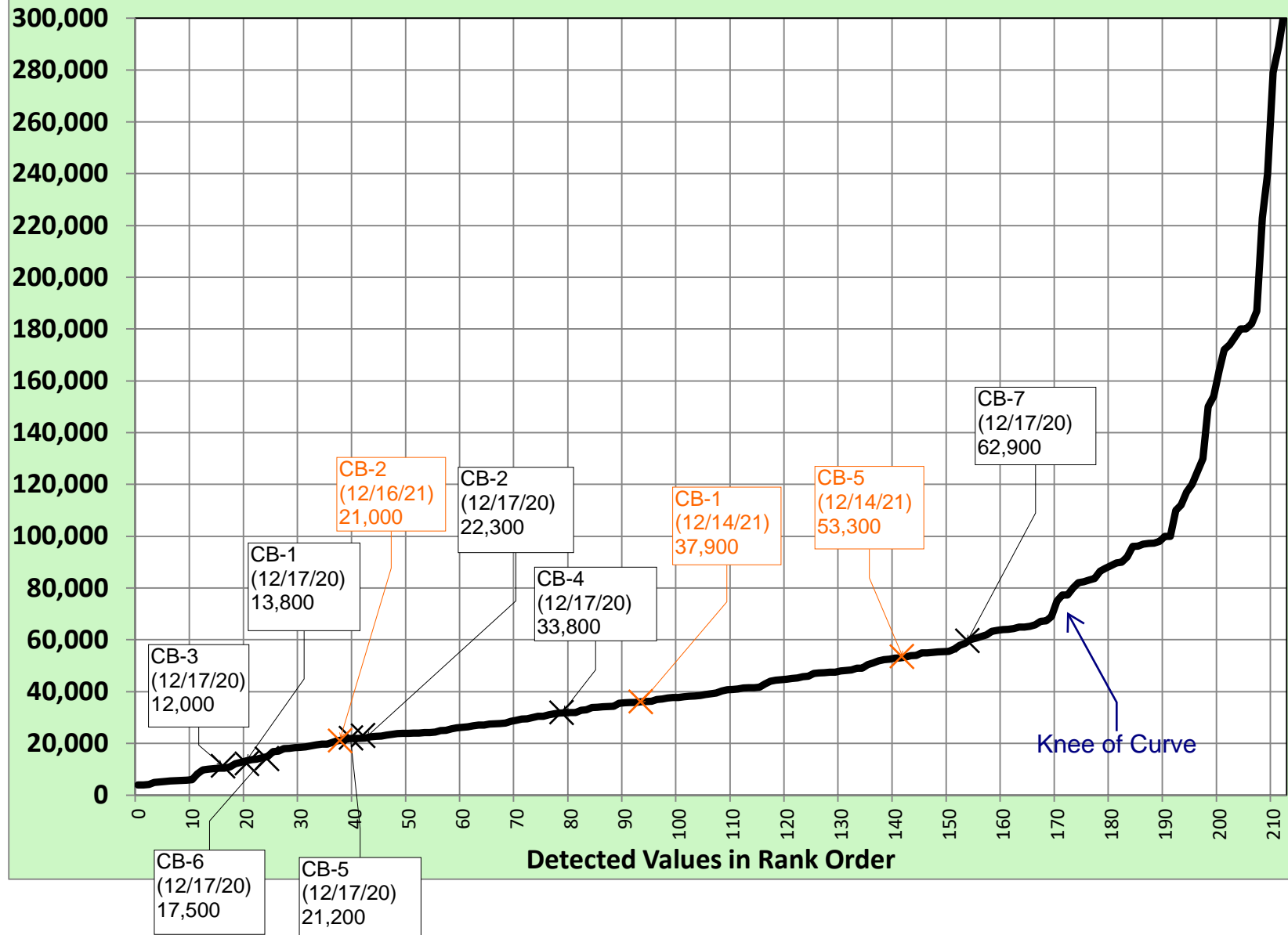
Lead (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



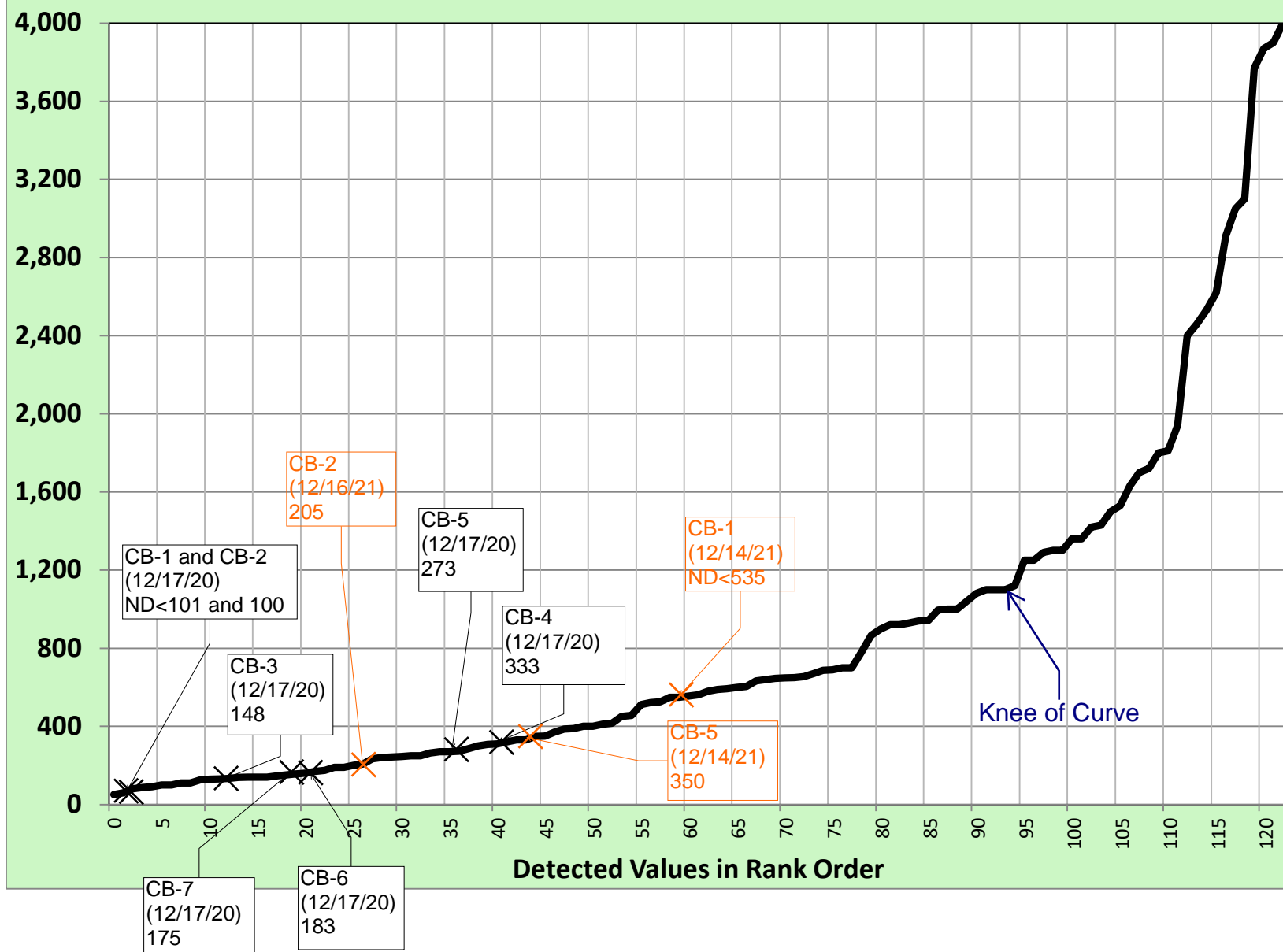
Mercury (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



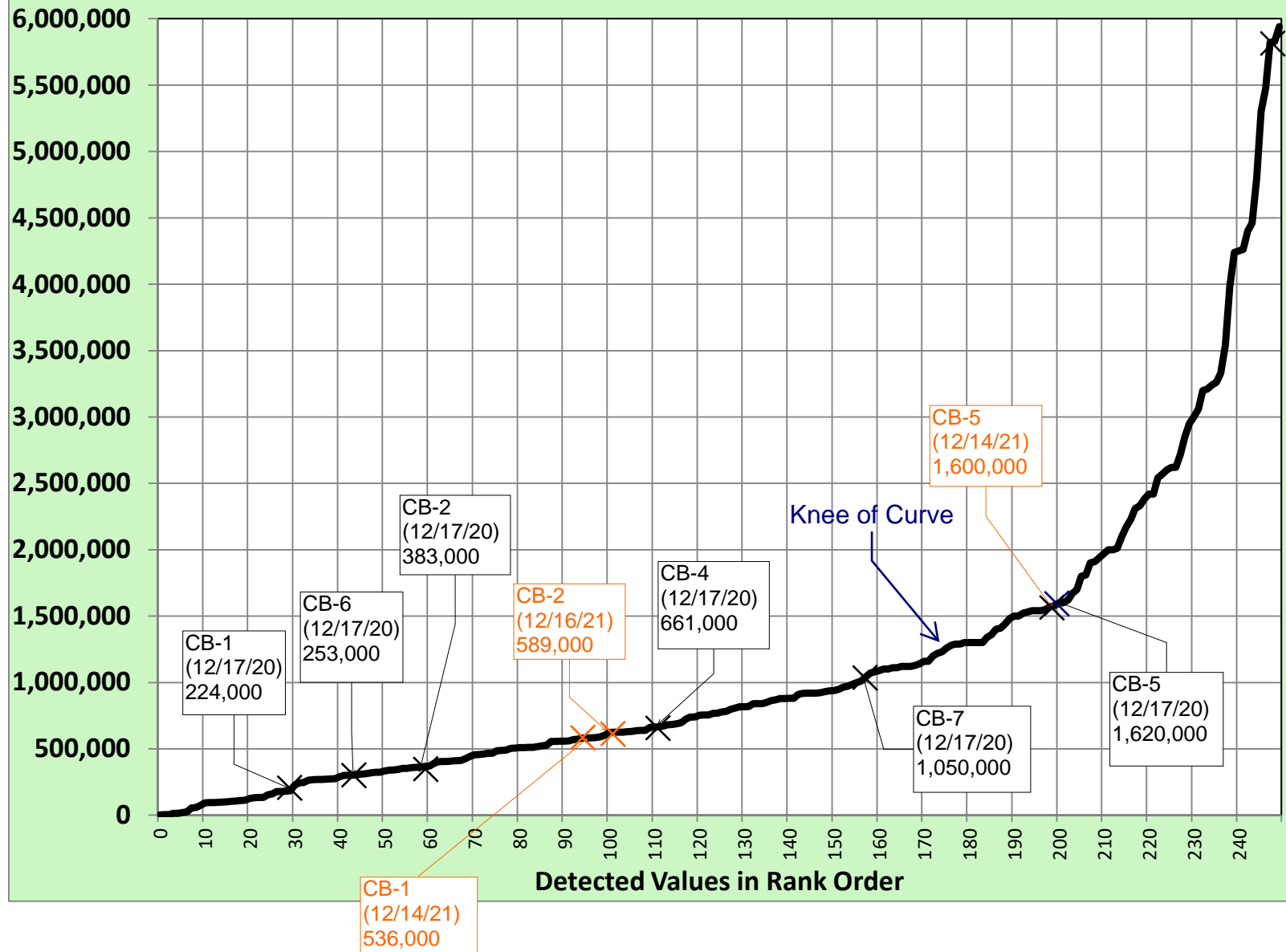
Nickel (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



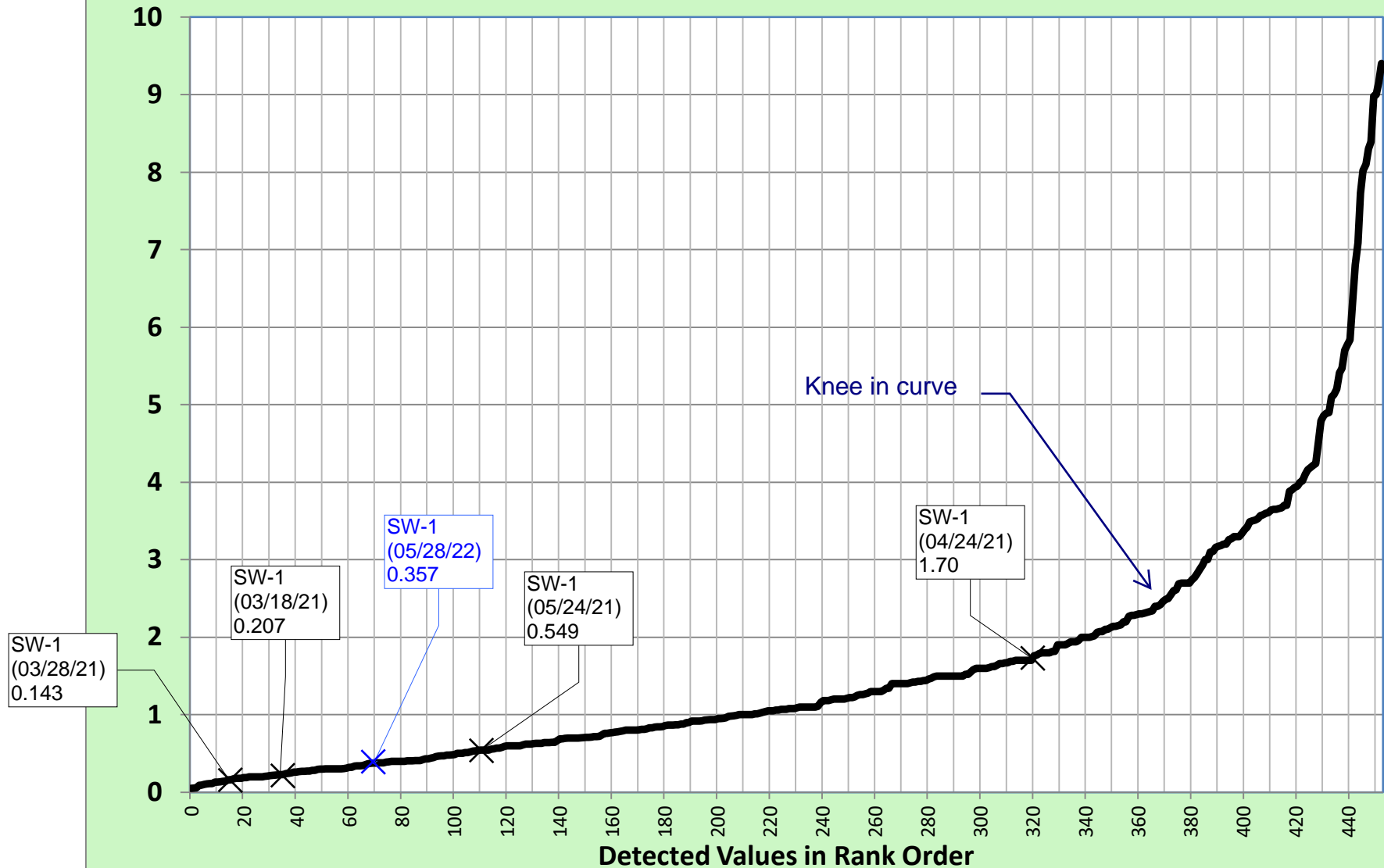
Silver (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



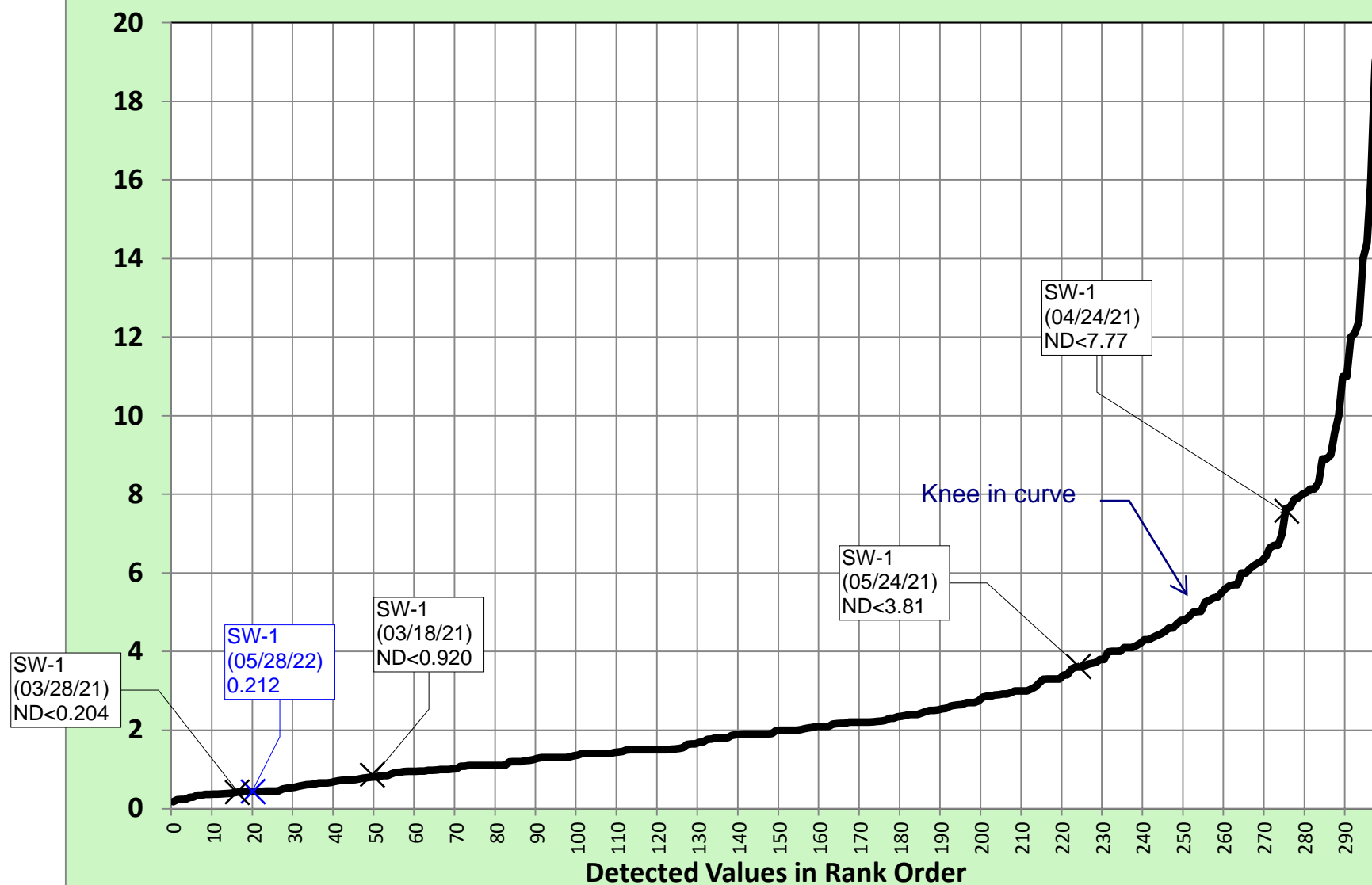
Zinc (ug/kg) in Stormwater Solids at Portland Harbor Heavy Industrial Sites



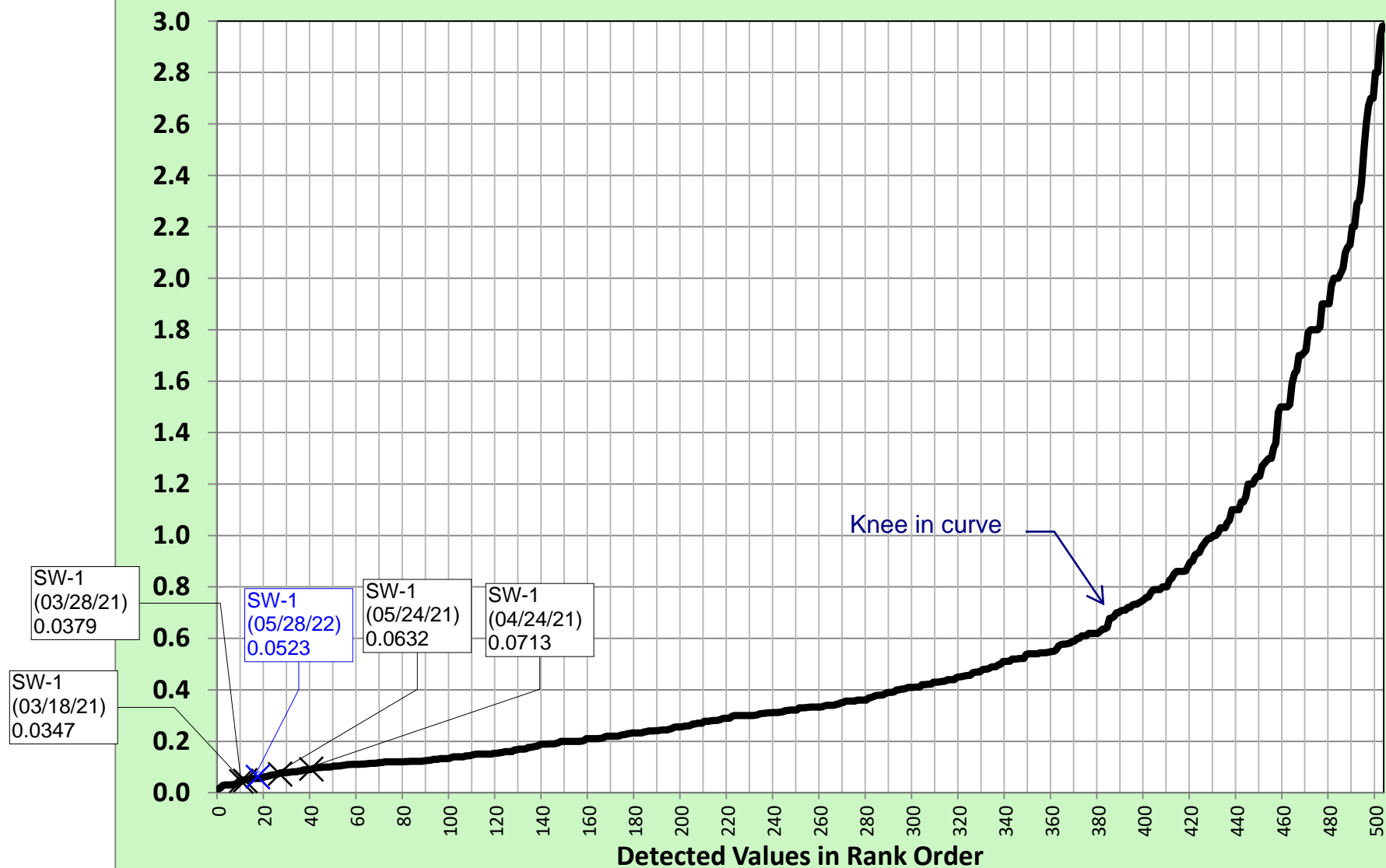
Arsenic (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



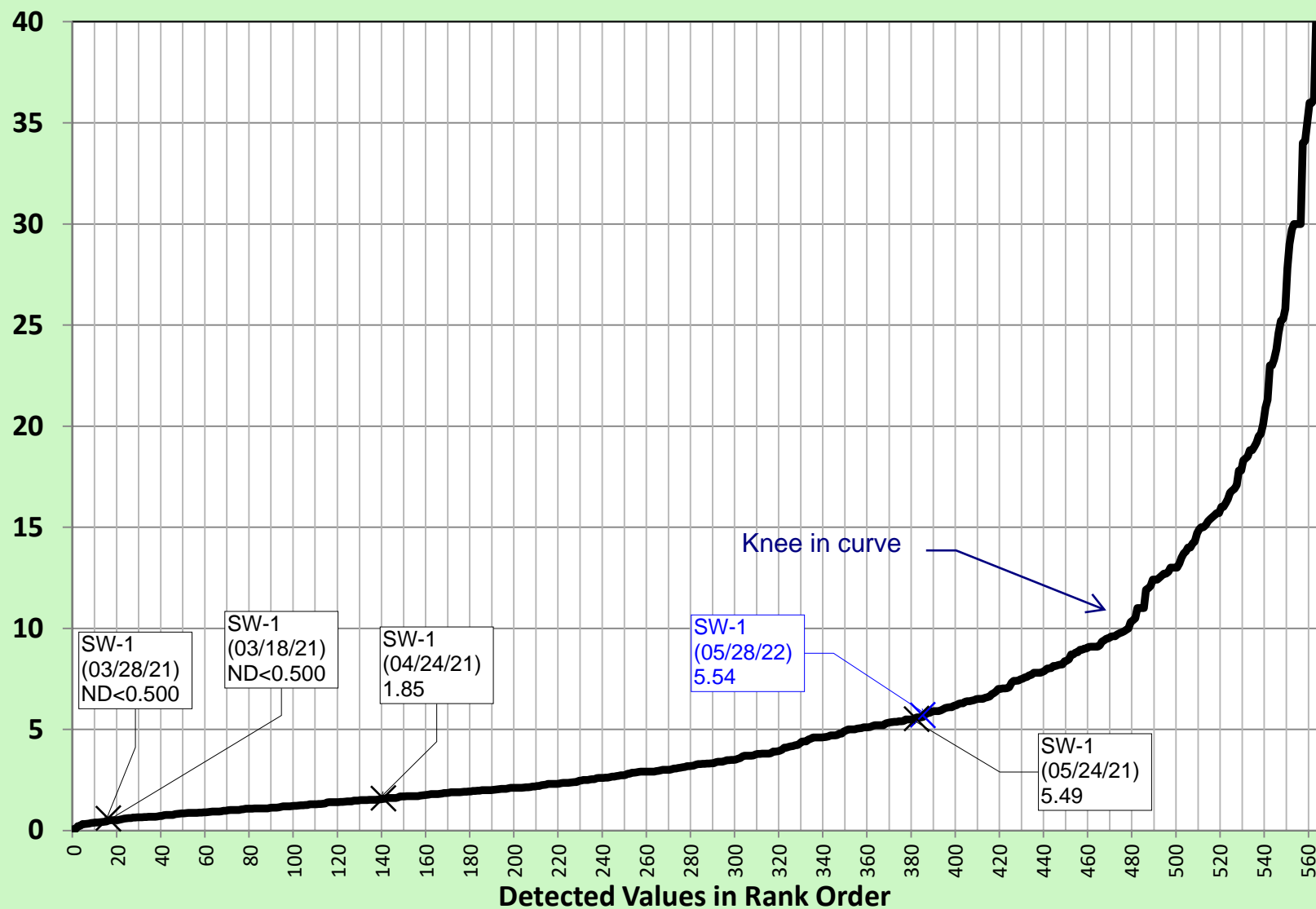
Bis(2-Ethylhexyl)phthalate in Stormwater at Portland Harbor Heavy Industrial Sites (ug/L)



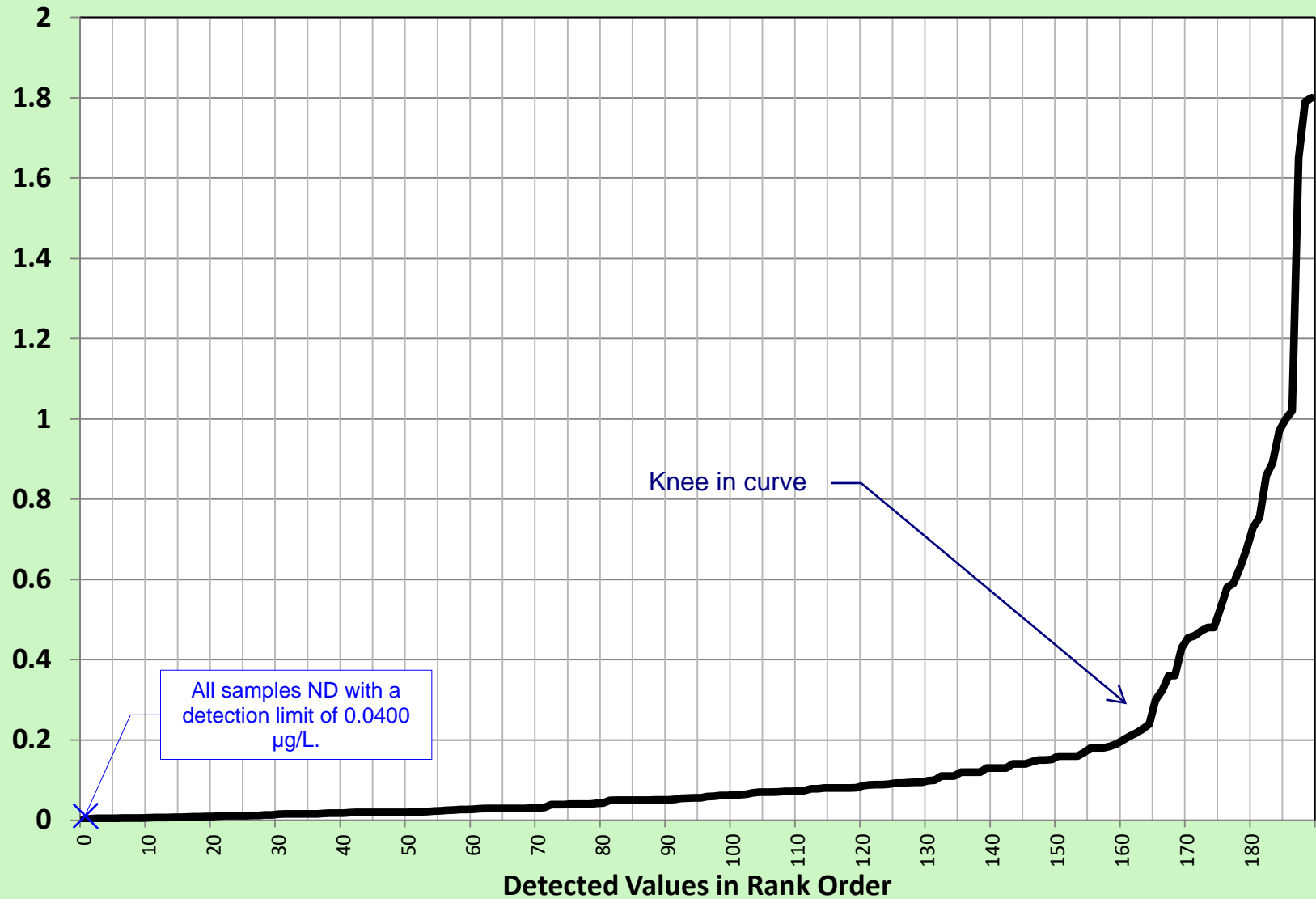
Cadmium (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



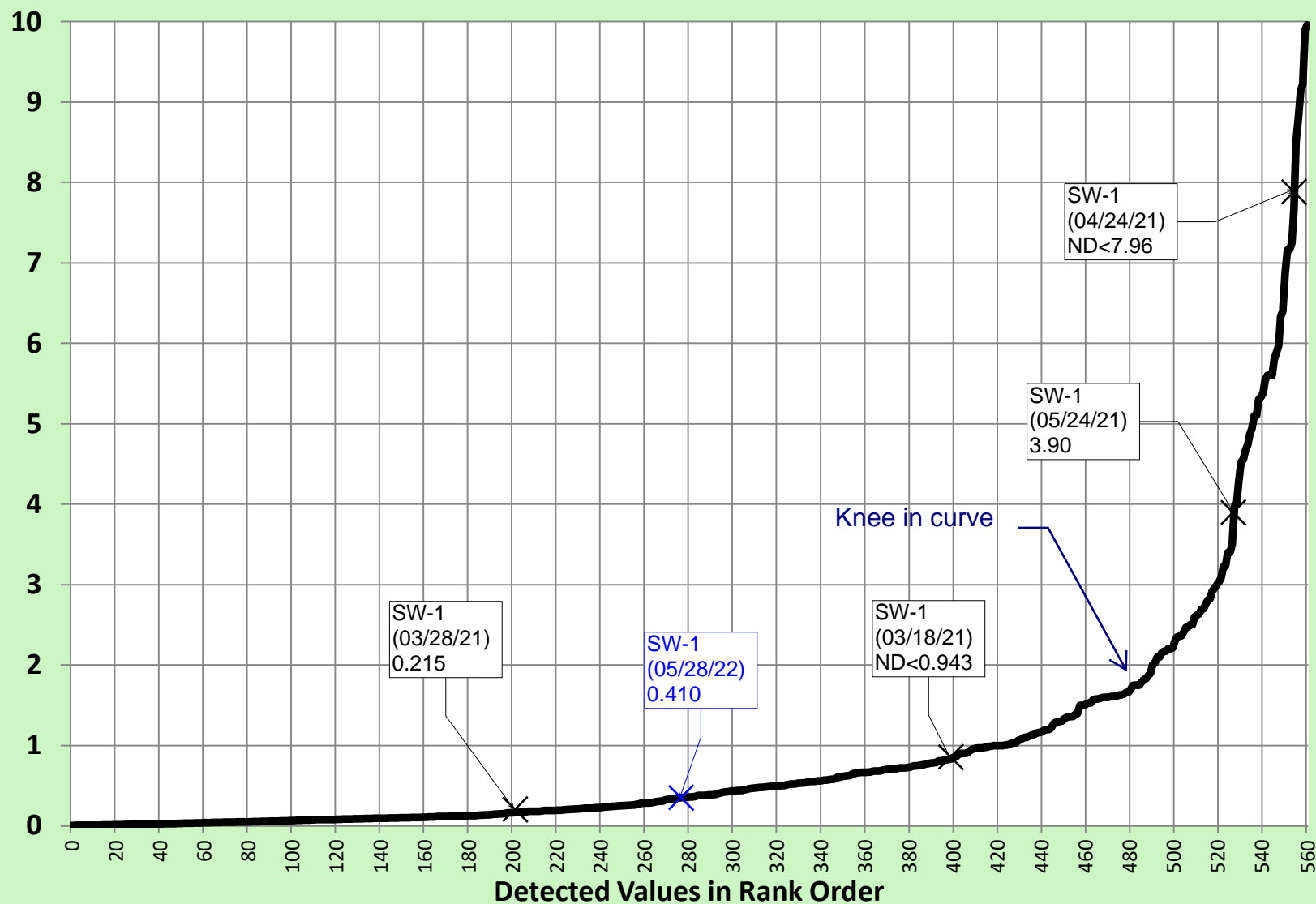
Chromium (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



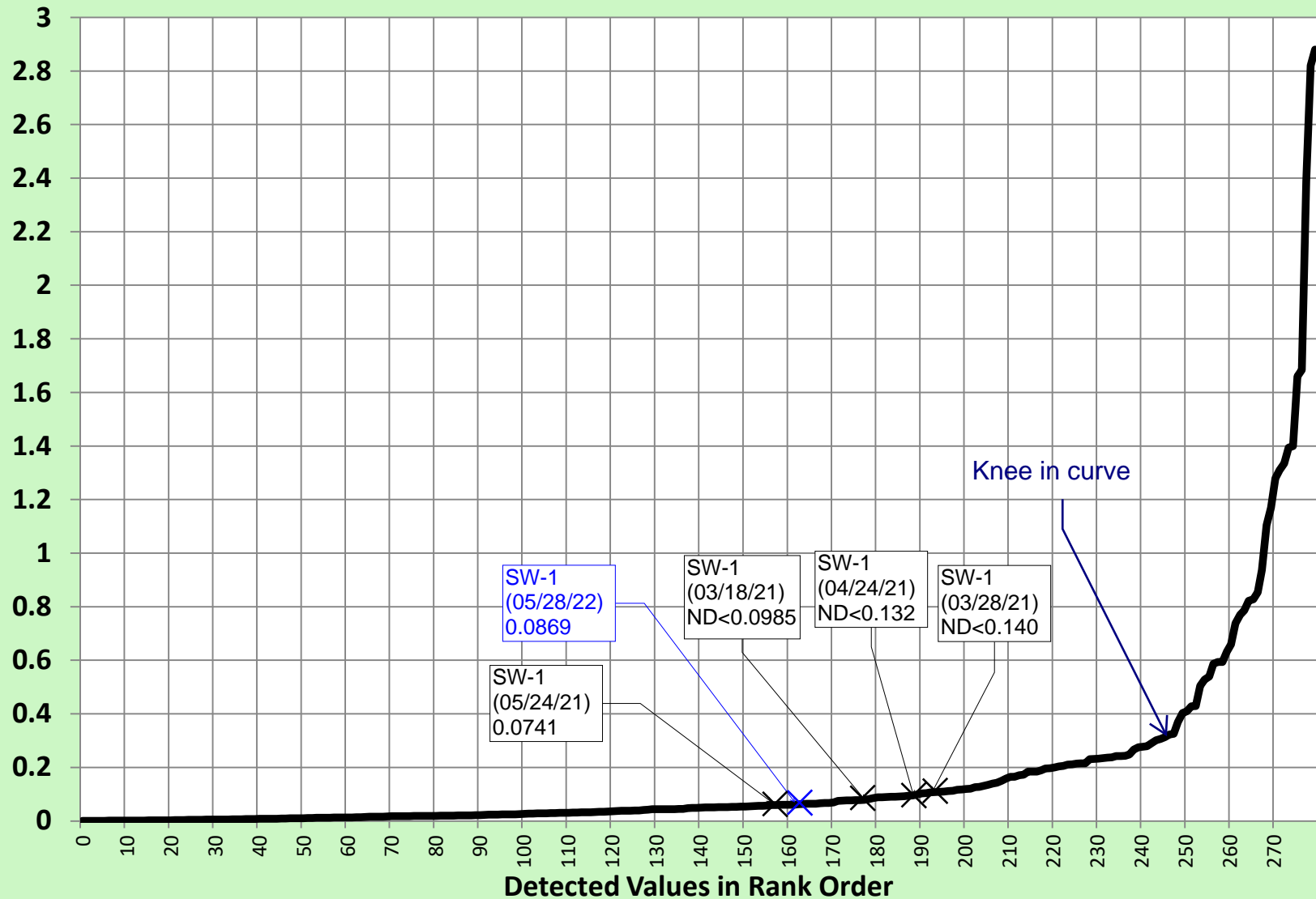
Mercury (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



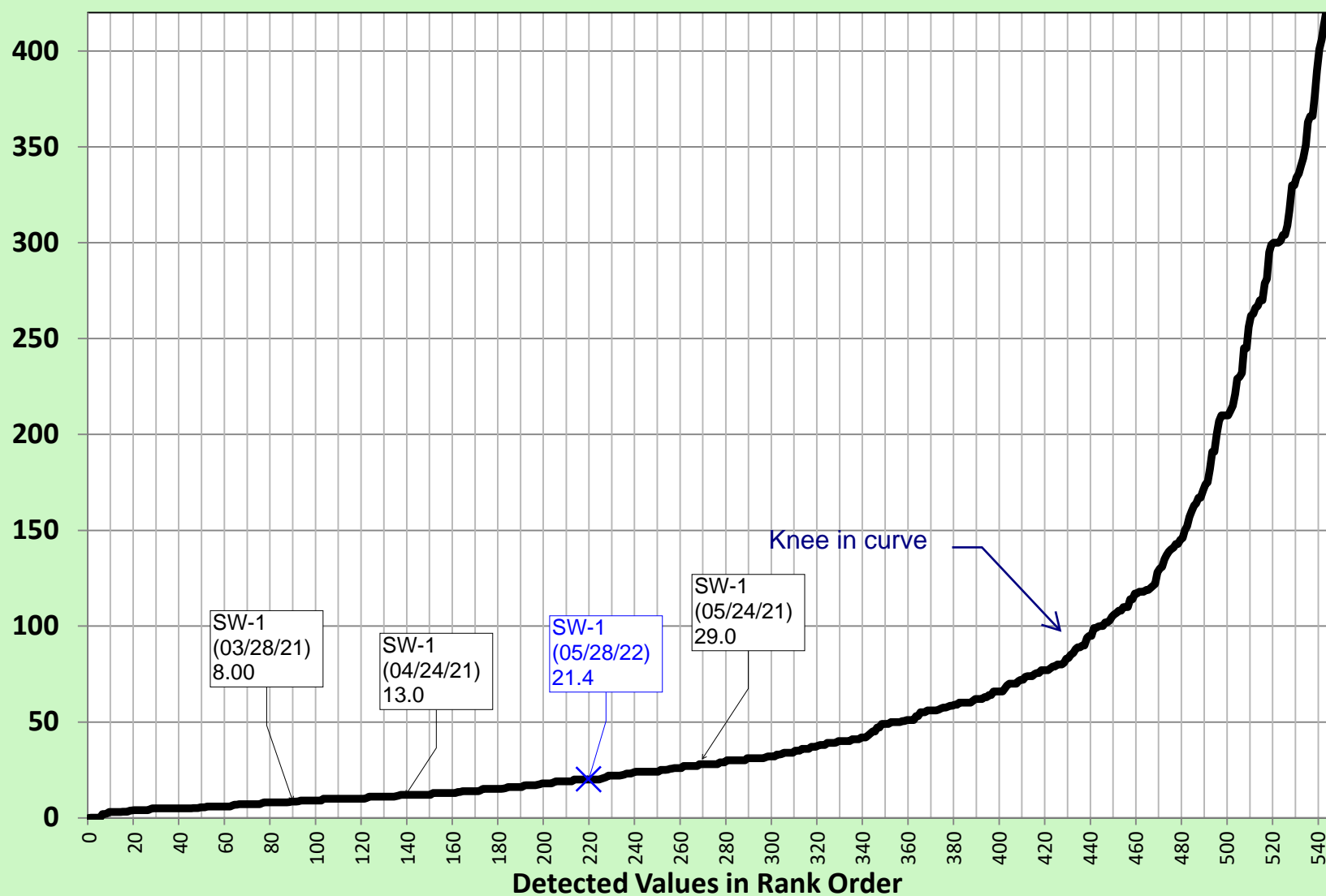
Total PAHs (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



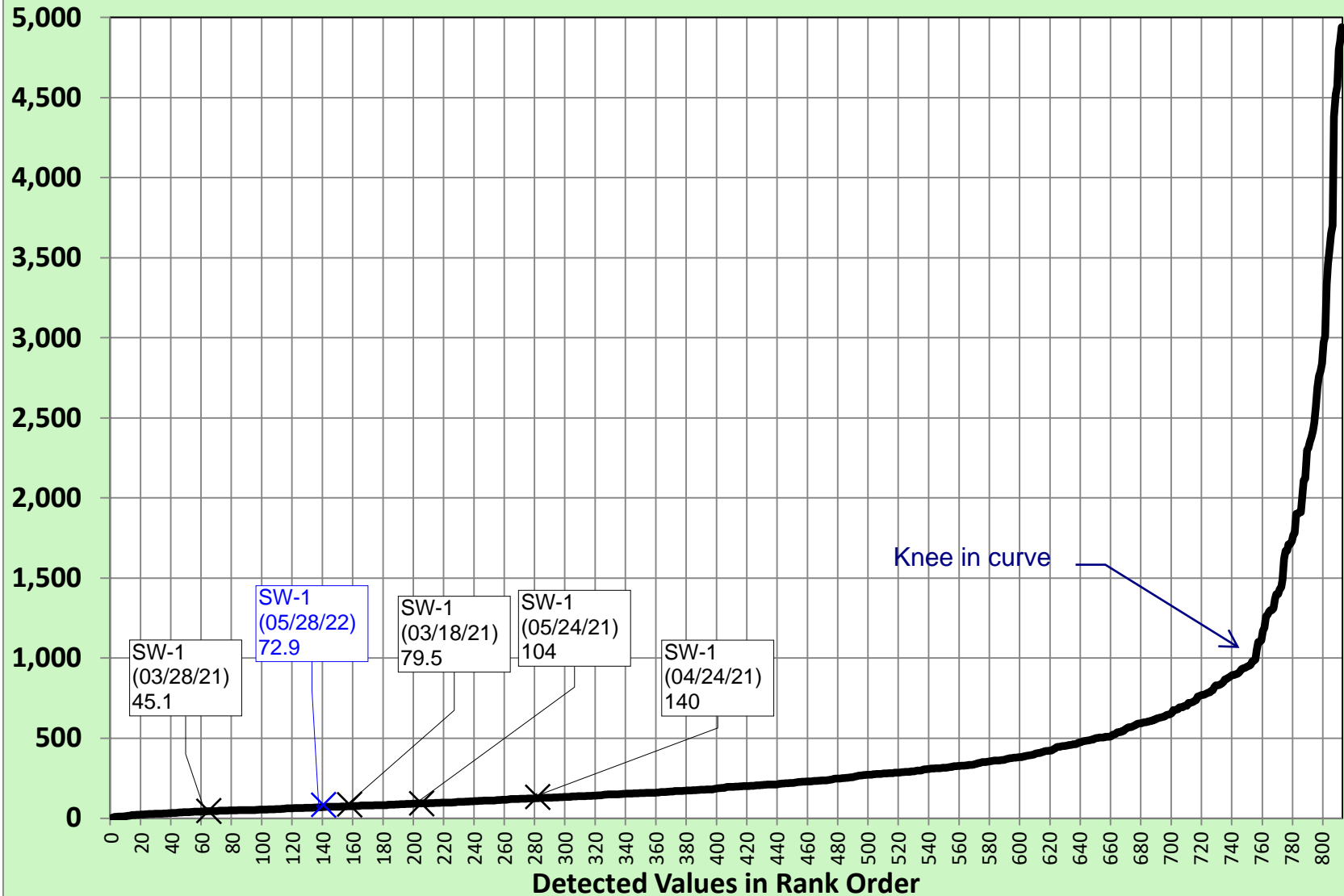
Total PCBs (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



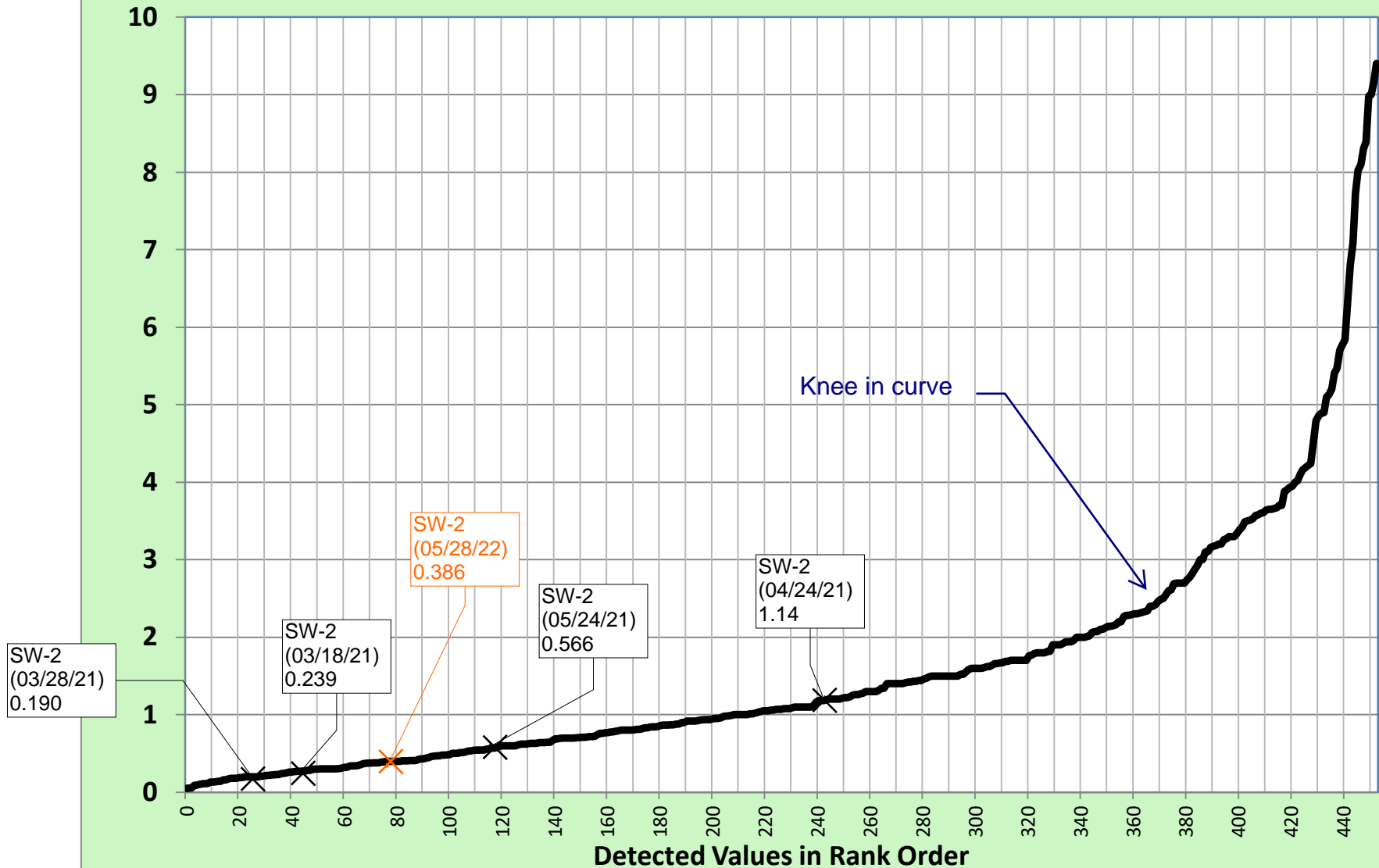
TSS (mg/L) in Stormwater at Portland Harbor Heavy Industrial Sites



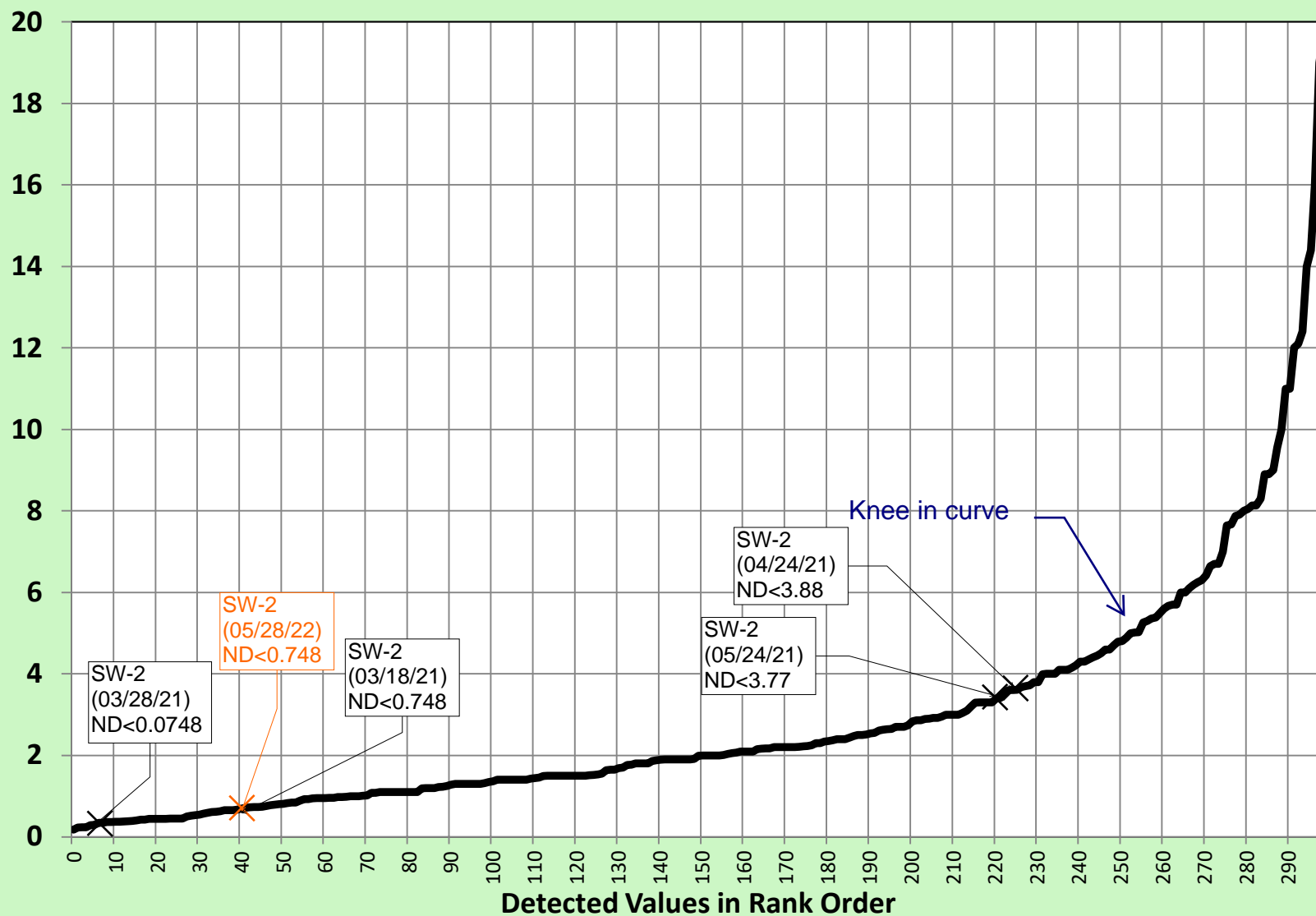
Zinc (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



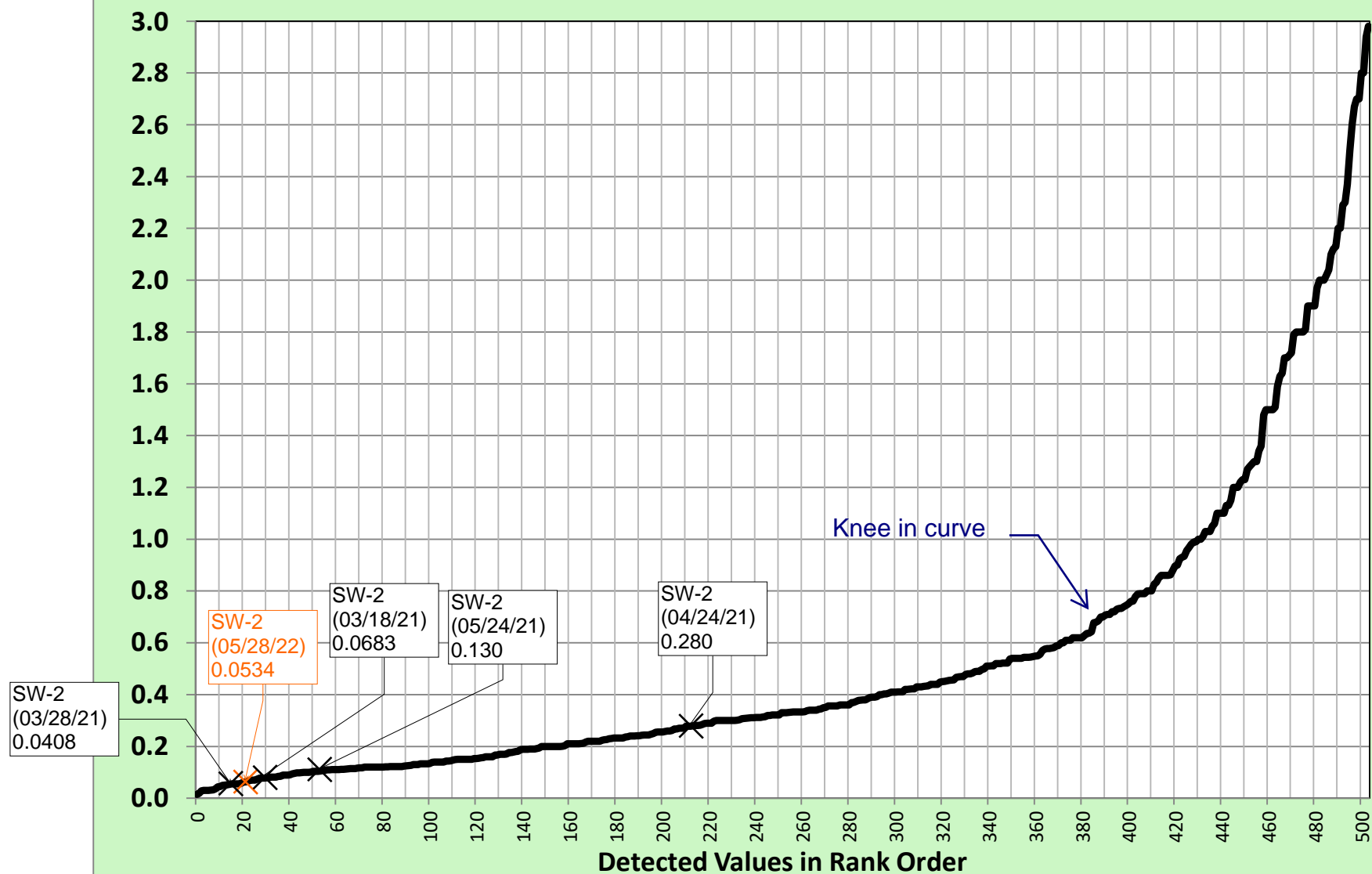
Arsenic (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



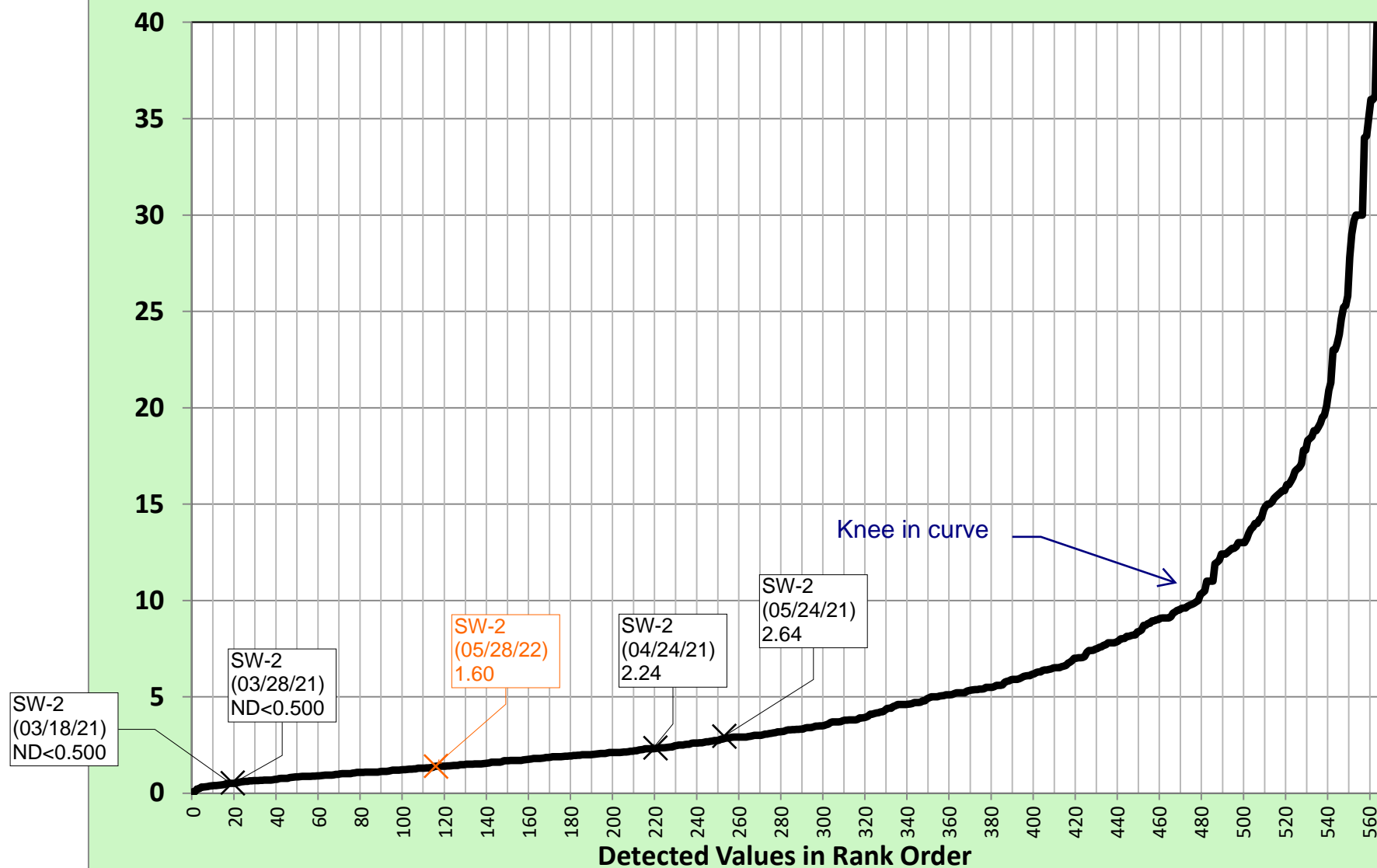
Bis(2-Ethylhexyl)phthalate in Stormwater at Portland Harbor Heavy Industrial Sites (ug/L)



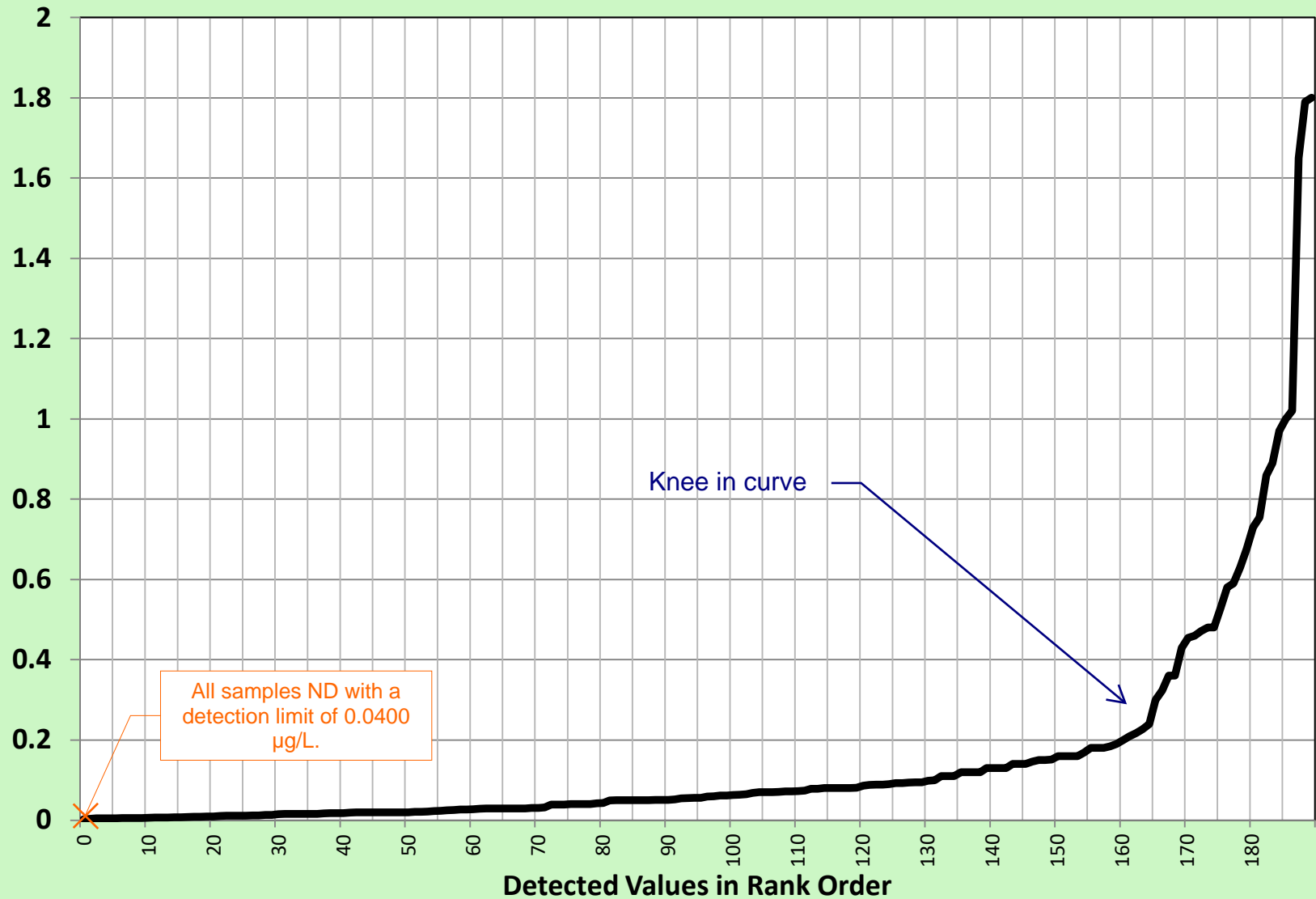
Cadmium (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



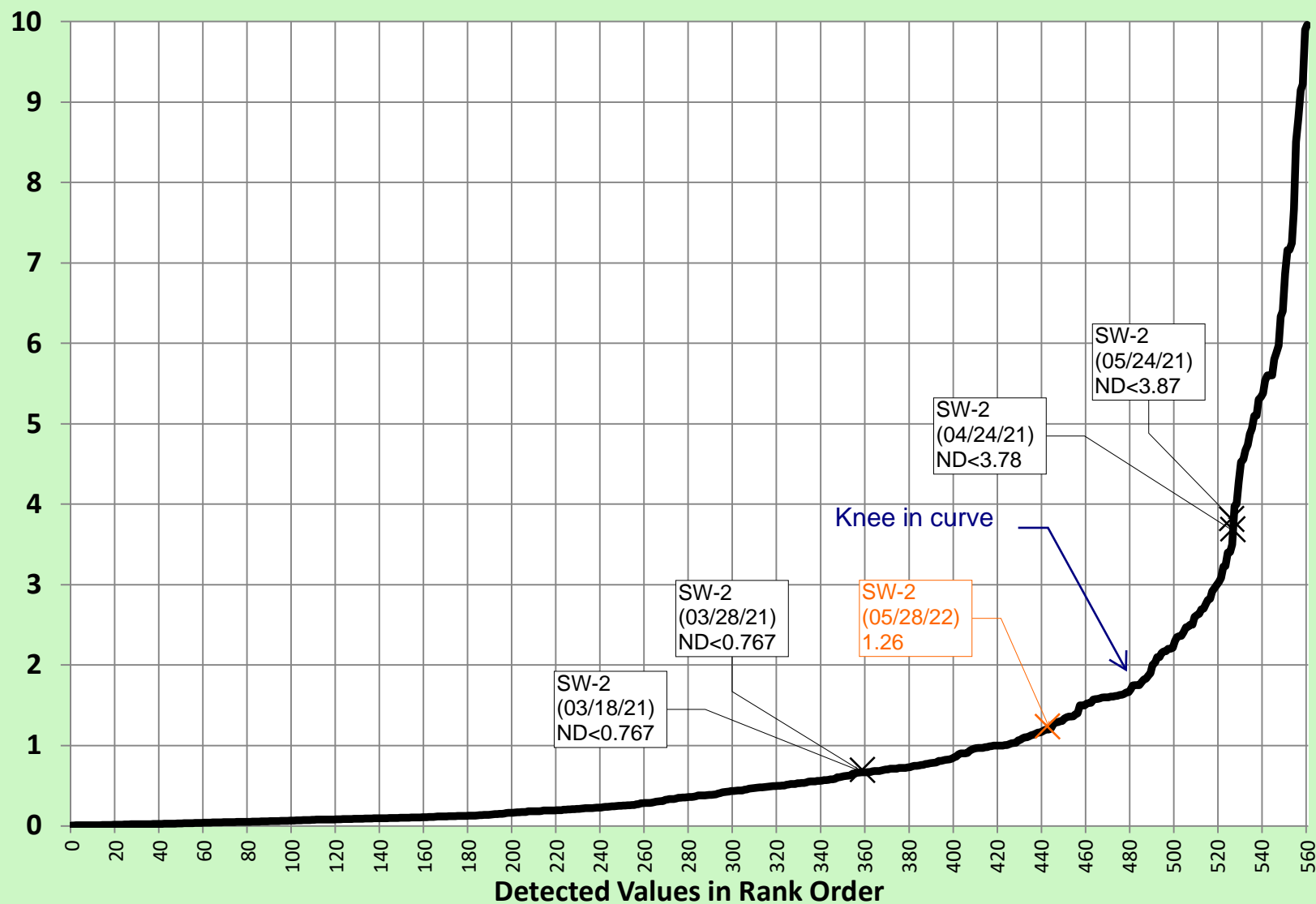
Chromium (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



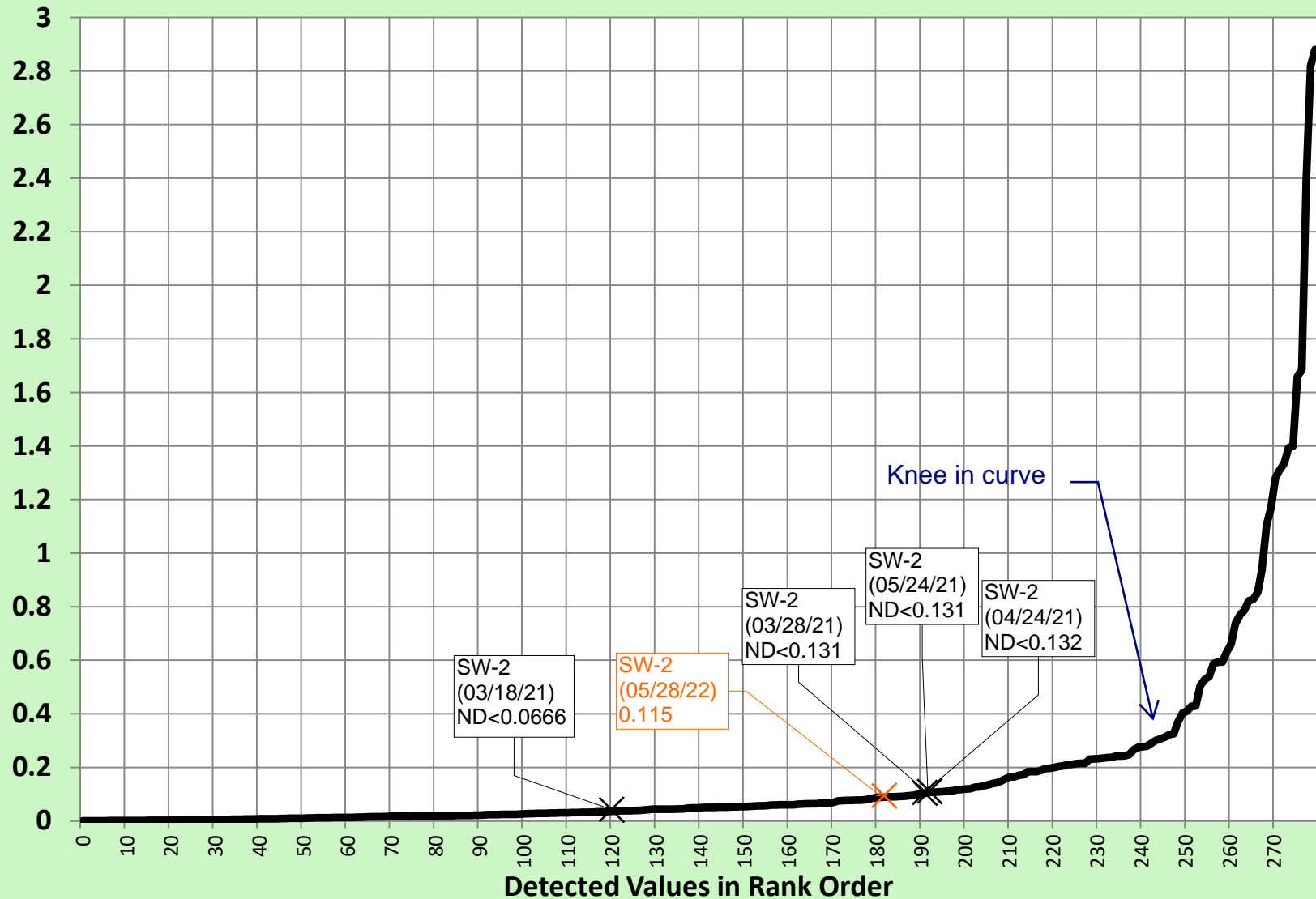
Mercury (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



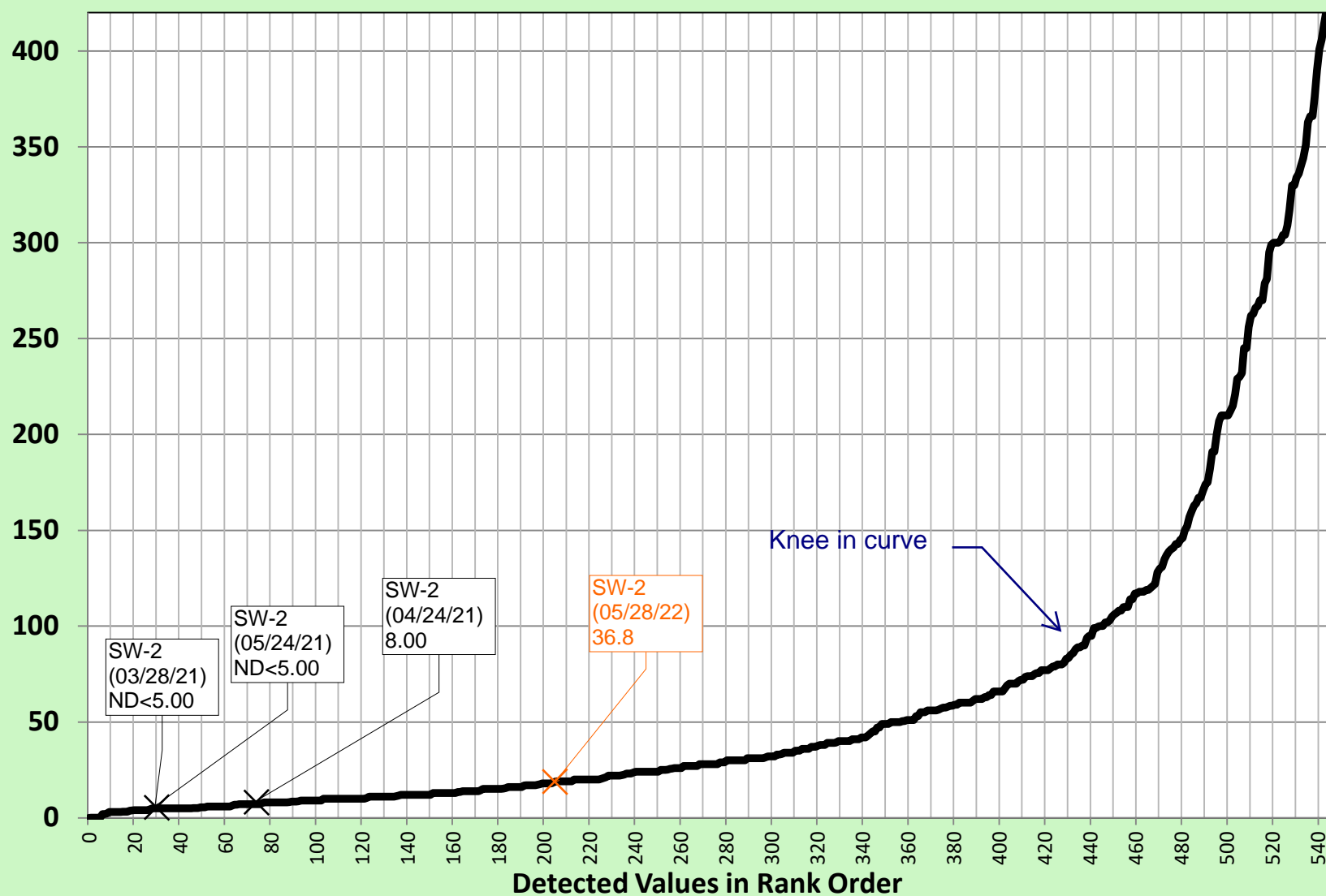
Total PAHs (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



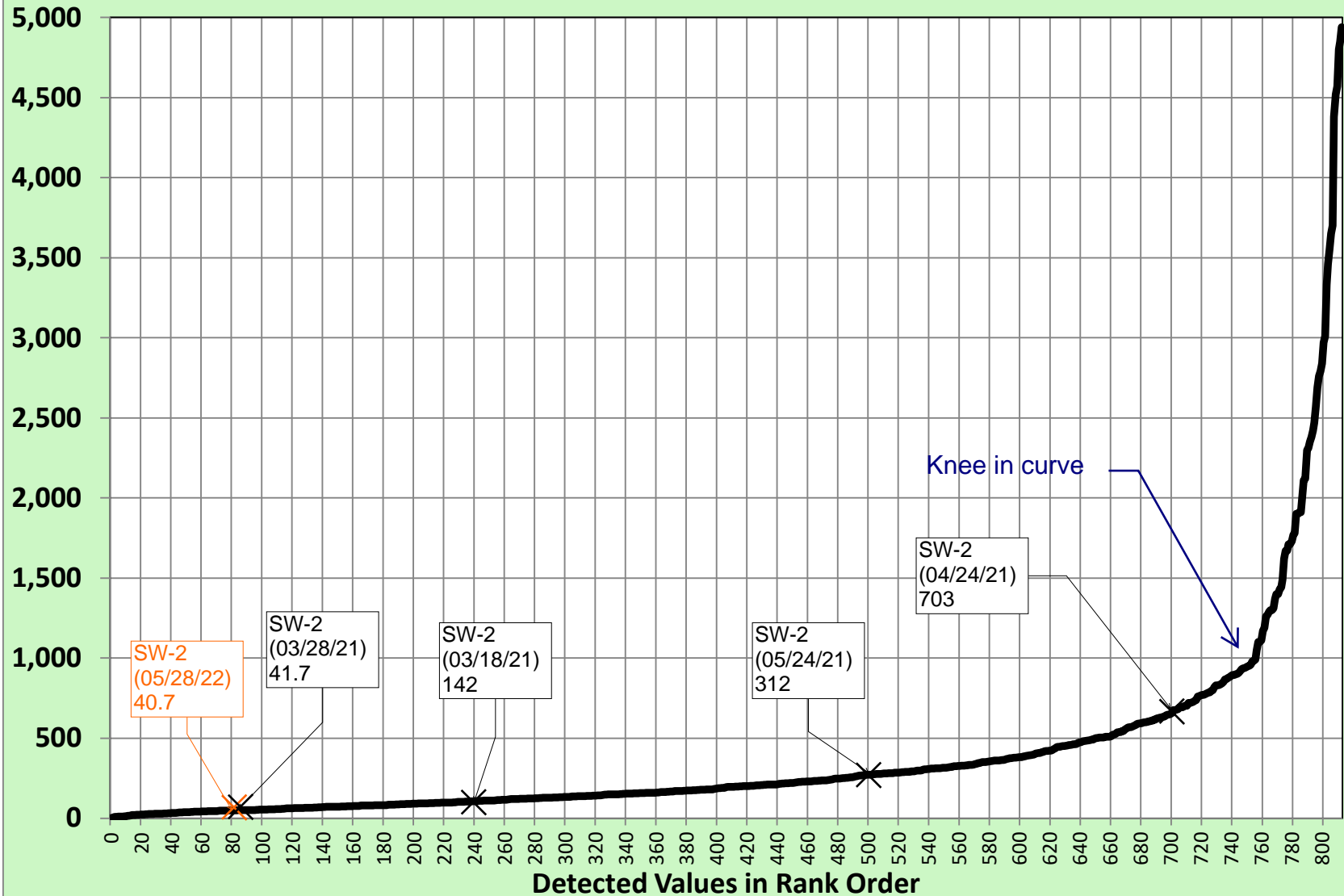
Total PCBs (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



TSS (mg/L) in Stormwater at Portland Harbor Heavy Industrial Sites



Zinc (ug/L) in Stormwater at Portland Harbor Heavy Industrial Sites



APPENDIX F

APPENDIX F

CHEMICAL ANALYTICAL PROGRAM

GENERAL

Chain-of-custody procedures were followed during handling and transport of the samples to the analytical laboratory. The laboratory holds the samples in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference, and laboratory QC records are presented in this appendix. The analytical results also are summarized in the tables of this report.

REVIEW OF ANALYTICAL DATA

The analytical laboratories maintain an internal QA program consisting of a combination of the following:

Blanks: Blanks are laboratory-prepared samples that are free of contaminants. The blanks are carried through the analysis procedure along with the field samples to document that contaminants were not introduced to the samples during sample handling and analysis.

Surrogate Recoveries: Surrogates are organic compounds that are similar in nature to the analytes of concern but are not normally found in nature. The surrogates are added to QC and field samples prior to analysis. The percent recovery of the surrogate is calculated to demonstrate acceptable method performance.

Duplicates: Duplicates are obtained by splitting a sample into two parts. The two separate parts are carried through the analyses. The analytical results are then compared by calculating the RPD between the samples. Analytes with RPDs greater than 50 percent (except chromium) were non-detections and/or analytes qualified by the laboratory as estimates. The RPD for chromium is 61.6 percent. This is slightly greater than the 50 percent threshold for representativeness. However, the RPD for all detected analytes was generally below 50 percent. In our opinion, the samples are considered adequately representative of the environmental conditions at the subject property and confirm the laboratory precision.

MS/MSD Recoveries: An MS sample is a sample that has been split into a second portion. The MSD is obtained by further splitting the MS sample. A known concentration of the analyte of interest is added to the MS and MSD samples. The analytical results for both samples are then compared for RPD and percent recovery to demonstrate acceptable method performance.

BS/BSD Recoveries: BS and BSD samples are obtained and analyzed in the same procedure as the MS/MSD samples; however, the laboratory blank sample is used to obtain the BS/BSD samples. The percent recovery and RPD of the known concentration of analyte of interest added to the BS/BSD sample is calculated after chemical analyses to demonstrate acceptable method performance.

Detection Limits: The detection limits that exceed regulatory screening levels do not appear to hinder our ability to adequately characterize sediment at the subject property. Laboratory detection limits that exceed regulatory screening levels are summarized in the table below.

Sediment Laboratory Detection Limit Exceedances

Analyte	Sample Name	Detection Limit	Screening Levels	Explanation for Non-Significance
Diesel-range hydrocarbons	CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6	96.1 – 495 mg/kg	91 mg/kg (EPA CUL)	Not detected in any sediment samples.
Tributyltin	CB-3	2.5 µg/kg	2.3 µg/kg (JSCS SLV)	Only detected in one sediment sample. Detection limit similar to screening level.
Acenaphthene	CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	344 – 867 µg/kg	200 µg/kg (JSCS SLV)	Lowest possible detection limits. Similar to screening level.
Acenaphthylene	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	344 – 937 µg/kg	200 µg/kg (JSCS SLV)	
Anthracene	CB-3	867 µg/kg	845 µg/kg (JSCS SLV)	
Benzo(g,h,i)perylene	CB-6, CB-7	344 and 353 µg/kg	300 µg/kg (JSCS SLV)	
Fluorene	CB-1, CB-2, CB-3	828 – 937 µg/kg	536 µg/kg (JSCS SLV)	
Indeno(1,2,3-cd)pyrene	CB-6, CB-7	344 and 353 µg/kg	100 µg/kg (JSCS SLV)	
2-Methylnaphthalene	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	691 – 1,880 µg/kg	200 µg/kg (JSCS SLV)	
Naphthalene (PAH)	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	691 – 1,880 µg/kg	561 µg/kg (JSCS SLV)	

Sediment Laboratory Detection Limit Exceedances (continued)

Analyte	Sample Name	Detection Limit	Screening Levels	Explanation for Non-Significance
BEHP	CB-1, CB-2, CB-3	12,400 – 14,100 µg/kg	135 µg/kg (EPA CUL) 330 µg/kg (JSCS SLV)	Detection limit less than “typical” stormwater at industrial sites.
Di-n-butylphthalate	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	3,440 – 9,370 µg/kg	60 µg/kg (JSCS SLV)	Lowest possible detection limits. Not detected in any sediment samples.
2,3,7,8-TCDD	CB-1, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	3.80 – 12.8 pg/g	0.2 pg/g (EPA CUL) 0.0091 pg/g (JSCS SLV)	Lowest possible detection limits. Dioxins/furans were detected and are considered a primary COPC.
1,2,3,7,8-PeCDD	CB-6, CB-7	7.74 and 12.5 pg/g	0.2 pg/g (EPA CUL) 2.6 pg/g (JSCS SLV)	
2,3,7,8-TCDF	CB-1, CB-2, CB-6, CB-7	4.04 – 11.4 pg/g	0.40658 pg/g (EPA CUL) 0.77 pg/g (JSCS SLV)	
1,2,3,7,8-PeCDF	CB-1, CB-6, CB-7	5.42 – 7.69 pg/g	2.6 pg/g (JSCS SLV)	
2,3,4,7,8-PeCDF	CB-1, CB-6, CB-7	5.26 – 6.63 pg/g	0.3 pg/g (EPA CUL) 0.03 pg/g (JSCS SLV)	
1,2,3,6,7,8-HxCDF	CB-1, CB-6, CB-7	5.57 – 6.47 pg/g	2.7 pg/g (JSCS SLV)	
2,3,4,6,7,8-HxCDF	CB-6, CB-7	5.95 and 6.74 pg/g	2.7 pg/g (JSCS SLV)	
1,2,3,7,8,9-HxCDF	CB-1, CB-2, CB-3, CB-6, CB-7	3.49 – 9.38 pg/g	2.7 pg/g (JSCS SLV)	

Sediment Laboratory Detection Limit Exceedances (continued)

Analyte	Sample Name	Detection Limit	Screening Levels	Explanation for Non-Significance
4,4'-DDD	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.00433 – 0.0479 mg/kg	0.114 mg/kg (EPA CUL) 0.00033 mg/kg (JSCS SLV)	Lowest possible detection limits. Not detected in any sediment samples.
4,4'-DDE	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.00433 – 0.0196 mg/kg	0.226 mg/kg (EPA CUL) 0.00033 mg/kg (JSCS SLV)	
4,4'-DDT	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.00784 – 0.0500 mg/kg	0.246 mg/kg (EPA CUL) 0.00033 mg/kg (JSCS SLV)	
Aldrin	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.00433 – 0.0165 mg/kg	0.002 mg/kg (EPA CUL) 0.04 mg/kg (JSCS SLV)	Lowest possible detection limits. Not detected in any sediment samples.
Chlordane	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.130 – 0.496 mg/kg	0.00037 mg/kg (JSCS SLV)	
Dieldrin	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.00433 – 0.0196 mg/kg	0.00007 mg/kg (EPA CUL) 0.0000081 (JSCS SLV)	
Gamma-HCH	CB-1, CB-2, CB-3, CB-4, CB-4-DUP, CB-5, CB-6, CB-7	0.00433 – 0.0165 mg/kg	0.005 mg/kg (EPA CUL) 0.00499 mg/kg (JSCS SLV)	
Heptachlor	CB-1	0.0165 mg/kg	0.010 mg/kg (JSCS SLV)	
Heptachlor Epoxide	CB-1, CB-5	0.0165 and 0.0196 mg/kg	0.016 mg/kg (JSCS SLV)	

Stormwater Laboratory Detection Limit Exceedances

Analyte	Sample Name	Detection Limit (µg/L)	Screening Levels (µg/L)	Explanation for Non-Significance
Total PCBs	All	0.06664 – 0.1400	0.0000064 (EPA CUL)	Generally not detected in any samples, lowest possible detection limit.
Select VOCs	All	0.0500 – 5.00	0.0095 – 0.92 (JSCS SLVs)	Generally not detected in any samples, lowest possible detection limit.
Phthalate Esters	SW-1(042421), SW-1(052421) SW-2(042421), SW-2(052421)	3.77 – 7.77	2.2 – 3 (JSCS SLVs)	Not detected in any samples, lowest possible detection limit.
Select PAHs	All	0.0374 – 0.77	0.00012 – 0.0013 (EPA CUL) 0.018 – 0.2 (JSCS SLV)	Generally not detected in any samples, lowest possible detection limit.
2,3,7,8-TCDD	All	9.61E-07 – 2.74E-06	5.1E-09 (JSCS SLV)	Not detected in any samples, lowest possible detection limit.

SUMMARY OF ANALYTICAL DATA REVIEW

NV5 reviewed the attached analytical data reports for data quality exceptions and deviations from acceptable method performance criteria. Based on our review of the analytical reports, the analytical data appear acceptable for their intended use.



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Monday, January 11, 2021

Kyle Haggart
GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

RE: A0L0698 - Former Automatic Vending Co. - BCSAmerica-1-02

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0L0698, which was received by the laboratory on 12/17/2020 at 3:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	2.7 degC
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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CB-1	A0L0698-01	Solid	12/17/20 10:10	12/17/20 15:30
CB-2	A0L0698-02	Solid	12/17/20 08:50	12/17/20 15:30
CB-3	A0L0698-03	Solid	12/17/20 09:15	12/17/20 15:30
CB-4	A0L0698-04	Solid	12/17/20 11:00	12/17/20 15:30
CB-4_DUP	A0L0698-05	Solid	12/17/20 11:05	12/17/20 15:30
CB-5	A0L0698-06	Solid	12/17/20 11:35	12/17/20 15:30
CB-6	A0L0698-07	Solid	12/17/20 13:10	12/17/20 15:30
CB-7	A0L0698-08	Solid	12/17/20 12:30	12/17/20 15:30
TB(121720)	A0L0698-09	Water	12/17/20 13:30	12/17/20 15:30

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle Haggart

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01RE2)				Matrix: Solid		Batch: 0120816		
Diesel	ND	49.9	99.7	mg/kg	5	12/23/20 12:50	NWTPH-Dx	F-03
Oil	1960	99.7	199	mg/kg	5	12/23/20 12:50	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %	5	12/23/20 12:50	NWTPH-Dx	
CB-2 (A0L0698-02RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	97.8	196	mg/kg	10	12/23/20 20:48	NWTPH-Dx	F-03
Oil	3120	196	391	mg/kg	10	12/23/20 20:48	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %	10	12/23/20 20:48	NWTPH-Dx	
CB-3 (A0L0698-03RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	96.1	192	mg/kg	10	12/23/20 21:08	NWTPH-Dx	F-03
Oil	3200	192	384	mg/kg	10	12/23/20 21:08	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 81 %		Limits: 50-150 %	10	12/23/20 21:08	NWTPH-Dx	
CB-4 (A0L0698-04RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	96.2	192	mg/kg	10	12/23/20 21:49	NWTPH-Dx	F-03
Oil	3170	192	385	mg/kg	10	12/23/20 21:49	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 59 %		Limits: 50-150 %	10	12/23/20 21:49	NWTPH-Dx	
CB-4_DUP (A0L0698-05RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	495	990	mg/kg	50	12/23/20 22:09	NWTPH-Dx	F-03
Oil	4780	990	1980	mg/kg	50	12/23/20 22:09	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: %		Limits: 50-150 %	50	12/23/20 22:09	NWTPH-Dx	
CB-5 (A0L0698-06RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	97.6	195	mg/kg	10	12/23/20 22:49	NWTPH-Dx	F-03
Oil	3450	195	390	mg/kg	10	12/23/20 22:49	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 79 %		Limits: 50-150 %	10	12/23/20 22:49	NWTPH-Dx	
CB-6 (A0L0698-07RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	97.3	195	mg/kg	10	12/23/20 13:30	NWTPH-Dx	F-03
Oil	2480	195	389	mg/kg	10	12/23/20 13:30	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 70 %		Limits: 50-150 %	10	12/23/20 13:30	NWTPH-Dx	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-7 (A0L0698-08RE1)				Matrix: Solid		Batch: 0120816		
Diesel	ND	49.6	99.2	mg/kg	5	12/23/20 23:09	NWTPH-Dx	
Oil	2590	99.2	198	mg/kg	5	12/23/20 23:09	NWTPH-Dx	F-03
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 50-150 %</i>	5	12/23/20 23:09	NWTPH-Dx	S-05

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)				Matrix: Solid		Batch: 0120869		
Gasoline Range Organics	33.2	14.4	28.7	mg/kg dry	50	12/23/20 18:31	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 103 %	Limits: 50-150 %	1	12/23/20 18:31	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		93 %	50-150 %	1	12/23/20 18:31	NWTPH-Gx (MS)		
CB-2 (A0L0698-02RE1)				Matrix: Solid		Batch: 0120899		
Gasoline Range Organics	10.1	7.06	14.1	mg/kg dry	50	12/28/20 13:27	NWTPH-Gx (MS)	J
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	12/28/20 13:27	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		89 %	50-150 %	1	12/28/20 13:27	NWTPH-Gx (MS)		
CB-3 (A0L0698-03)				Matrix: Solid		Batch: 0120869		
Gasoline Range Organics	ND	5.60	11.2	mg/kg dry	50	12/23/20 19:26	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	12/23/20 19:26	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		92 %	50-150 %	1	12/23/20 19:26	NWTPH-Gx (MS)		
CB-4 (A0L0698-04)				Matrix: Solid		Batch: 0120869		
Gasoline Range Organics	ND	14.2	28.3	mg/kg dry	50	12/23/20 19:53	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	12/23/20 19:53	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		93 %	50-150 %	1	12/23/20 19:53	NWTPH-Gx (MS)		
CB-4_DUP (A0L0698-05)				Matrix: Solid		Batch: 0120869		
Gasoline Range Organics	ND	13.3	26.6	mg/kg dry	50	12/23/20 20:20	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	12/23/20 20:20	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		94 %	50-150 %	1	12/23/20 20:20	NWTPH-Gx (MS)		
CB-5 (A0L0698-06)				Matrix: Solid		Batch: 0120837		
Gasoline Range Organics	ND	11.6	23.1	mg/kg dry	50	12/23/20 10:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 92 %	Limits: 50-150 %	1	12/23/20 10:54	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		88 %	50-150 %	1	12/23/20 10:54	NWTPH-Gx (MS)		
CB-6 (A0L0698-07)				Matrix: Solid		Batch: 0120837		
Gasoline Range Organics	31.1	14.3	28.6	mg/kg dry	50	12/23/20 11:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	12/23/20 11:22	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		88 %	50-150 %	1	12/23/20 11:22	NWTPH-Gx (MS)		
CB-7 (A0L0698-08)				Matrix: Solid		Batch: 0120837		

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-7 (A0L0698-08)				Matrix: Solid		Batch: 0120837		
Gasoline Range Organics	ND	8.39	16.8	mg/kg dry	50	12/23/20 02:45	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	103 %	Limits: 50-150 %	1	12/23/20 02:45	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			96 %	50-150 %	1	12/23/20 02:45	NWTPH-Gx (MS)	

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Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)				Matrix: Solid		Batch: 0120869		
Acetone	ND	2.87	5.74	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Acrylonitrile	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Benzene	ND	0.0287	0.0574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Bromobenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Bromochloromethane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Bromodichloromethane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Bromoform	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Bromomethane	ND	2.87	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
2-Butanone (MEK)	ND	1.44	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
n-Butylbenzene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
sec-Butylbenzene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
tert-Butylbenzene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Carbon disulfide	ND	1.44	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Carbon tetrachloride	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Chlorobenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Chloroethane	ND	2.87	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Chloroform	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Chloromethane	ND	0.718	1.44	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
2-Chlorotoluene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
4-Chlorotoluene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Dibromochloromethane	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.718	1.44	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Dibromomethane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Dichlorodifluoromethane	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1-Dichloroethane	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1-Dichloroethene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)		Matrix: Solid			Batch: 0120869			
1,2-Dichloropropane	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,3-Dichloropropane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
2,2-Dichloropropane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1-Dichloropropene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Ethylbenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Hexachlorobutadiene	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
2-Hexanone	ND	1.44	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Isopropylbenzene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
4-Isopropyltoluene	0.448	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Methylene chloride	ND	1.44	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1.44	2.87	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Naphthalene	0.336	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	J
n-Propylbenzene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Styrene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Toluene	0.207	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	J
1,2,3-Trichlorobenzene	ND	0.718	1.44	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.718	1.44	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Trichloroethene (TCE)	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Trichlorofluoromethane	ND	0.287	0.574	mg/kg dry	50	12/23/20 18:31	5035A/8260D	Q-30
1,2,3-Trichloropropane	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
Vinyl chloride	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
m,p-Xylene	ND	0.144	0.287	mg/kg dry	50	12/23/20 18:31	5035A/8260D	
o-Xylene	ND	0.0718	0.144	mg/kg dry	50	12/23/20 18:31	5035A/8260D	

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)		Matrix: Solid			Batch: 0120869			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 108 %	Limits: 80-120 %	1	12/23/20 18:31	5035A/8260D		
Toluene-d8 (Surr)		100 %	80-120 %	1	12/23/20 18:31	5035A/8260D		
4-Bromofluorobenzene (Surr)		106 %	79-120 %	1	12/23/20 18:31	5035A/8260D		
CB-2 (A0L0698-02RE1)		Matrix: Solid			Batch: 0120899			
Acetone	ND	1.41	2.82	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Acrylonitrile	ND	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Benzene	ND	0.0141	0.0282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Bromobenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Bromochloromethane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Bromodichloromethane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Bromoform	ND	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Bromomethane	ND	1.41	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
2-Butanone (MEK)	ND	0.706	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
n-Butylbenzene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
sec-Butylbenzene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
tert-Butylbenzene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Carbon disulfide	ND	0.706	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Carbon tetrachloride	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Chlorobenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Chloroethane	ND	1.41	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Chloroform	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Chloromethane	ND	0.706	0.706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
2-Chlorotoluene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
4-Chlorotoluene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Dibromochloromethane	ND	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.353	0.706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Dibromomethane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Dichlorodifluoromethane	ND	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1-Dichloroethane	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-2 (A0L0698-02RE1)				Matrix: Solid		Batch: 0120899		
1,2-Dichloroethane (EDC)	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1-Dichloroethene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2-Dichloropropane	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,3-Dichloropropane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
2,2-Dichloropropane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1-Dichloropropene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Ethylbenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Hexachlorobutadiene	ND	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
2-Hexanone	ND	1.41	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Isopropylbenzene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
4-Isopropyltoluene	0.0763	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	J
Methylene chloride	ND	0.706	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	0.706	1.41	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Naphthalene	0.154	0.141	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	J
n-Propylbenzene	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Styrene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Toluene	0.110	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	J
1,2,3-Trichlorobenzene	ND	0.353	0.706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.353	0.706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Trichloroethene (TCE)	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
Trichlorofluoromethane	ND	0.282	0.282	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
1,2,4-Trimethylbenzene	0.160	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-2 (A0L0698-02RE1)		Matrix: Solid			Batch: 0120899			
1,3,5-Trimethylbenzene	0.0861	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	J
Vinyl chloride	ND	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
m,p-Xylene	ND	0.0706	0.141	mg/kg dry	50	12/28/20 13:27	5035A/8260D	
o-Xylene	0.0353	0.0353	0.0706	mg/kg dry	50	12/28/20 13:27	5035A/8260D	J
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>104 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>12/28/20 13:27</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>12/28/20 13:27</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>105 %</i>		<i>79-120 %</i>	<i>1</i>	<i>12/28/20 13:27</i>	<i>5035A/8260D</i>
CB-3 (A0L0698-03)		Matrix: Solid			Batch: 0120869			
Acetone	ND	1.12	2.24	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Acrylonitrile	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Benzene	ND	0.0112	0.0224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Bromobenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Bromochloromethane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Bromodichloromethane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Bromoform	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Bromomethane	ND	1.12	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
2-Butanone (MEK)	ND	0.560	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
n-Butylbenzene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
sec-Butylbenzene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
tert-Butylbenzene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Carbon disulfide	ND	0.560	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Carbon tetrachloride	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Chlorobenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Chloroethane	ND	1.12	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Chloroform	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Chloromethane	ND	0.280	0.560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
2-Chlorotoluene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
4-Chlorotoluene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Dibromochloromethane	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.280	0.560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Dibromomethane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-3 (A0L0698-03)				Matrix: Solid		Batch: 0120869		
1,3-Dichlorobenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Dichlorodifluoromethane	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1-Dichloroethane	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1-Dichloroethene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2-Dichloropropane	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,3-Dichloropropane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
2,2-Dichloropropane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1-Dichloropropene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Ethylbenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Hexachlorobutadiene	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
2-Hexanone	ND	0.560	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Isopropylbenzene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
4-Isopropyltoluene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Methylene chloride	ND	0.560	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	0.560	1.12	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Naphthalene	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
n-Propylbenzene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Styrene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Toluene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.280	0.560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.280	0.560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-3 (A0L0698-03)		Matrix: Solid			Batch: 0120869			
Trichloroethene (TCE)	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	Q-30
Trichlorofluoromethane	ND	0.112	0.224	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
Vinyl chloride	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
m,p-Xylene	ND	0.0560	0.112	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
o-Xylene	ND	0.0280	0.0560	mg/kg dry	50	12/23/20 19:26	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/23/20 19:26</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>12/23/20 19:26</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>79-120 %</i>	<i>1</i>	<i>12/23/20 19:26</i>	<i>5035A/8260D</i>	
CB-4 (A0L0698-04)		Matrix: Solid			Batch: 0120869			
Acetone	ND	2.83	5.66	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Acrylonitrile	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Benzene	ND	0.0283	0.0566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Bromobenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Bromochloromethane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Bromodichloromethane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Bromoform	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Bromomethane	ND	2.83	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
2-Butanone (MEK)	ND	1.42	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
n-Butylbenzene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
sec-Butylbenzene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
tert-Butylbenzene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Carbon disulfide	ND	1.42	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Carbon tetrachloride	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Chlorobenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Chloroethane	ND	2.83	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Chloroform	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Chloromethane	ND	0.708	1.42	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
2-Chlorotoluene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
4-Chlorotoluene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Dibromochloromethane	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	

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Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4 (A0L0698-04)		Matrix: Solid			Batch: 0120869			
1,2-Dibromo-3-chloropropane	ND	0.708	1.42	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Dibromomethane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Dichlorodifluoromethane	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1-Dichloroethane	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1-Dichloroethene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,2-Dichloropropane	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,3-Dichloropropane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
2,2-Dichloropropane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1-Dichloropropene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Ethylbenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Hexachlorobutadiene	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
2-Hexanone	ND	1.42	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Isopropylbenzene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
4-Isopropyltoluene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Methylene chloride	ND	1.42	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1.42	2.83	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Naphthalene	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
n-Propylbenzene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Styrene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Toluene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4 (A0L0698-04)		Matrix: Solid			Batch: 0120869			
1,2,3-Trichlorobenzene	ND	0.708	1.42	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.708	1.42	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Trichloroethene (TCE)	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Trichlorofluoromethane	ND	0.283	0.566	mg/kg dry	50	12/23/20 19:53	5035A/8260D	Q-30
1,2,3-Trichloropropane	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
Vinyl chloride	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
m,p-Xylene	ND	0.142	0.283	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
o-Xylene	ND	0.0708	0.142	mg/kg dry	50	12/23/20 19:53	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	104 %	<i>Limits:</i>	80-120 %	1	12/23/20 19:53	5035A/8260D
<i>Toluene-d8 (Surr)</i>			99 %		80-120 %	1	12/23/20 19:53	5035A/8260D
<i>4-Bromofluorobenzene (Surr)</i>			106 %		79-120 %	1	12/23/20 19:53	5035A/8260D
CB-4_DUP (A0L0698-05)		Matrix: Solid			Batch: 0120869			
Acetone	ND	2.66	5.33	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Acrylonitrile	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Benzene	ND	0.0266	0.0533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Bromobenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Bromochloromethane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Bromodichloromethane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Bromoform	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Bromomethane	ND	2.66	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
2-Butanone (MEK)	ND	1.33	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
n-Butylbenzene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
sec-Butylbenzene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
tert-Butylbenzene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Carbon disulfide	ND	1.33	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Carbon tetrachloride	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Chlorobenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Chloroethane	ND	2.66	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Chloroform	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4_DUP (A0L0698-05)				Matrix: Solid		Batch: 0120869		
Chloromethane	ND	0.666	1.33	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
2-Chlorotoluene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
4-Chlorotoluene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Dibromochloromethane	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.666	1.33	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Dibromomethane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Dichlorodifluoromethane	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,1-Dichloroethane	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,1-Dichloroethene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2-Dichloropropane	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,3-Dichloropropane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
2,2-Dichloropropane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,1-Dichloropropene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Ethylbenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Hexachlorobutadiene	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
2-Hexanone	ND	1.33	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Isopropylbenzene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
4-Isopropyltoluene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Methylene chloride	ND	1.33	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1.33	2.66	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Naphthalene	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
n-Propylbenzene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Styrene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4_DUP (A0L0698-05)		Matrix: Solid			Batch: 0120869			
1,1,1,2-Tetrachloroethane	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Toluene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.666	1.33	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.666	1.33	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Trichloroethene (TCE)	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Trichlorofluoromethane	ND	0.266	0.533	mg/kg dry	50	12/23/20 20:20	5035A/8260D	Q-30
1,2,3-Trichloropropane	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
Vinyl chloride	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
m,p-Xylene	ND	0.133	0.266	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
o-Xylene	ND	0.0666	0.133	mg/kg dry	50	12/23/20 20:20	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/23/20 20:20</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>12/23/20 20:20</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>104 %</i>		<i>79-120 %</i>	<i>1</i>	<i>12/23/20 20:20</i>	<i>5035A/8260D</i>	
CB-5 (A0L0698-06)		Matrix: Solid			Batch: 0120837			
Acetone	ND	4.63	4.63	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Acrylonitrile	ND	0.463	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Benzene	ND	0.0231	0.0463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Bromobenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Bromochloromethane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Bromodichloromethane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Bromoform	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Bromomethane	ND	2.31	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
2-Butanone (MEK)	ND	1.16	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
n-Butylbenzene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
sec-Butylbenzene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
tert-Butylbenzene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Carbon disulfide	ND	1.16	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS**Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-5 (A0L0698-06)				Matrix: Solid		Batch: 0120837		
Carbon tetrachloride	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Chlorobenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Chloroethane	ND	2.31	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Chloroform	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Chloromethane	ND	0.578	1.16	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
2-Chlorotoluene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
4-Chlorotoluene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Dibromochloromethane	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.578	1.16	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Dibromomethane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Dichlorodifluoromethane	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1-Dichloroethane	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1-Dichloroethene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2-Dichloropropane	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,3-Dichloropropane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
2,2-Dichloropropane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1-Dichloropropene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Ethylbenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Hexachlorobutadiene	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
2-Hexanone	ND	1.16	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Isopropylbenzene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
4-Isopropyltoluene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Methylene chloride	ND	1.16	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1.16	2.31	mg/kg dry	50	12/23/20 10:54	5035A/8260D	

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-5 (A0L0698-06)		Matrix: Solid			Batch: 0120837			
Methyl tert-butyl ether (MTBE)	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Naphthalene	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
n-Propylbenzene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Styrene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Toluene	0.562	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.578	1.16	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.578	1.16	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Trichloroethene (TCE)	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Trichlorofluoromethane	ND	0.231	0.463	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2,3-Trichloropropane	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
Vinyl chloride	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
m,p-Xylene	ND	0.116	0.231	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
o-Xylene	ND	0.0578	0.116	mg/kg dry	50	12/23/20 10:54	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 118 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/23/20 10:54</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>12/23/20 10:54</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>79-120 %</i>	<i>1</i>	<i>12/23/20 10:54</i>	<i>5035A/8260D</i>	

CB-6 (A0L0698-07)		Matrix: Solid			Batch: 0120837			
Acetone	ND	5.72	5.72	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Acrylonitrile	ND	0.572	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Benzene	ND	0.0286	0.0572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Bromobenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Bromochloromethane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Bromodichloromethane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Bromoform	ND	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Bromomethane	ND	2.86	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
2-Butanone (MEK)	ND	1.43	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

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9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-6 (A0L0698-07)				Matrix: Solid		Batch: 0120837		
n-Butylbenzene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
sec-Butylbenzene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
tert-Butylbenzene	ND	0.286	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Carbon disulfide	ND	1.43	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Carbon tetrachloride	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Chlorobenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Chloroethane	ND	2.86	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Chloroform	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Chloromethane	ND	0.714	1.43	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
2-Chlorotoluene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
4-Chlorotoluene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Dibromochloromethane	ND	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.714	1.43	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Dibromomethane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Dichlorodifluoromethane	ND	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1-Dichloroethane	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1-Dichloroethene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2-Dichloropropane	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,3-Dichloropropane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
2,2-Dichloropropane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1-Dichloropropene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Ethylbenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Hexachlorobutadiene	ND	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
2-Hexanone	ND	1.43	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	

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Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-6 (A0L0698-07)		Matrix: Solid			Batch: 0120837			
Isopropylbenzene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
4-Isopropyltoluene	0.377	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Methylene chloride	ND	1.43	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	1.43	2.86	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Naphthalene	0.286	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	J
n-Propylbenzene	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Styrene	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Toluene	0.149	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	J
1,2,3-Trichlorobenzene	ND	0.714	1.43	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.714	1.43	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Trichloroethene (TCE)	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
Trichlorofluoromethane	ND	0.286	0.572	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2,3-Trichloropropane	ND	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,2,4-Trimethylbenzene	0.552	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
1,3,5-Trimethylbenzene	0.194	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	J
Vinyl chloride	ND	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	
m,p-Xylene	0.220	0.143	0.286	mg/kg dry	50	12/23/20 11:22	5035A/8260D	J
o-Xylene	0.111	0.0714	0.143	mg/kg dry	50	12/23/20 11:22	5035A/8260D	J
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	117 %	<i>Limits:</i>	80-120 %	1	12/23/20 11:22	5035A/8260D
<i>Toluene-d8 (Surr)</i>			98 %		80-120 %	1	12/23/20 11:22	5035A/8260D
<i>4-Bromofluorobenzene (Surr)</i>			103 %		79-120 %	1	12/23/20 11:22	5035A/8260D

CB-7 (A0L0698-08)**Matrix: Solid****Batch: 0120837**

Acetone	ND	3.35	3.35	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Acrylonitrile	ND	0.335	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Benzene	ND	0.0168	0.0335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Bromobenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	

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9450 SW Commerce Circle
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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-7 (A0L0698-08)				Matrix: Solid		Batch: 0120837		
Bromochloromethane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Bromodichloromethane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Bromoform	ND	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Bromomethane	ND	1.68	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
2-Butanone (MEK)	ND	0.839	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
n-Butylbenzene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
sec-Butylbenzene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
tert-Butylbenzene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Carbon disulfide	ND	0.839	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Carbon tetrachloride	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Chlorobenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Chloroethane	ND	1.68	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Chloroform	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Chloromethane	ND	0.419	0.839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
2-Chlorotoluene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
4-Chlorotoluene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Dibromochloromethane	ND	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.419	0.839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Dibromomethane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Dichlorodifluoromethane	ND	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1-Dichloroethane	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1-Dichloroethene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2-Dichloropropane	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,3-Dichloropropane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
2,2-Dichloropropane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1-Dichloropropene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	

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Philip Nerenberg, Lab Director

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-7 (A0L0698-08)		Matrix: Solid			Batch: 0120837			
cis-1,3-Dichloropropene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Ethylbenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Hexachlorobutadiene	ND	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
2-Hexanone	ND	0.839	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Isopropylbenzene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
4-Isopropyltoluene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Methylene chloride	ND	0.839	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	0.839	1.68	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Naphthalene	0.168	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	J
n-Propylbenzene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Styrene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Toluene	0.151	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	J
1,2,3-Trichlorobenzene	ND	0.419	0.839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.419	0.839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Trichloroethene (TCE)	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Trichlorofluoromethane	ND	0.168	0.335	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
1,2,4-Trimethylbenzene	0.122	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	J
1,3,5-Trimethylbenzene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Vinyl chloride	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
m,p-Xylene	ND	0.0839	0.168	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
o-Xylene	ND	0.0419	0.0839	mg/kg dry	50	12/23/20 02:45	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	12/23/20 02:45	5035A/8260D	
Toluene-d8 (Surr)		100 %		80-120 %	1	12/23/20 02:45	5035A/8260D	
4-Bromofluorobenzene (Surr)		106 %		79-120 %	1	12/23/20 02:45	5035A/8260D	

TB(121720) (A0L0698-09)**Matrix: Water****Batch: 0120732**

Apex Laboratories

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB(121720) (A0L0698-09)				Matrix: Water		Batch: 0120732		
Acetone	ND	10.0	20.0	ug/L	1	12/20/20 01:46	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	12/20/20 01:46	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Bromoform	ND	1.00	2.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	12/20/20 01:46	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	12/20/20 01:46	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	12/20/20 01:46	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	12/20/20 01:46	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB(121720) (A0L0698-09)				Matrix: Water		Batch: 0120732		
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	Q-30
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	12/20/20 01:46	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	12/20/20 01:46	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	12/20/20 01:46	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	12/20/20 01:46	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Naphthalene	ND	2.00	2.00	ug/L	1	12/20/20 01:46	EPA 8260D	Q-30
n-Propylbenzene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	12/20/20 01:46	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	12/20/20 01:46	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	12/20/20 01:46	EPA 8260D	

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Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB(121720) (A0L0698-09)				Matrix: Water		Batch: 0120732		
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits:	80-120 %	1	12/20/20 01:46	EPA 8260D
Toluene-d8 (Surr)			105 %		80-120 %	1	12/20/20 01:46	EPA 8260D
4-Bromofluorobenzene (Surr)			103 %		80-120 %	1	12/20/20 01:46	EPA 8260D

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01RE1)		Matrix: Solid			Batch: 0121020		C-07	
Aroclor 1016	ND	0.00913	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1221	ND	0.00913	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1232	ND	0.0183	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1242	ND	0.00913	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1248	ND	0.00913	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1254	ND	0.00913	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1260	ND	0.00913	0.0183	mg/kg	1	01/04/21 08:19	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 90 %		Limits: 60-125 %	1	01/04/21 08:19	EPA 8082A	
CB-2 (A0L0698-02RE1)		Matrix: Solid			Batch: 0121020		C-07	
Aroclor 1016	ND	0.00847	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1221	ND	0.00847	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1232	ND	0.0169	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1242	ND	0.00847	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1248	ND	0.00847	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1254	0.0124	0.00847	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	J
Aroclor 1260	0.0152	0.00847	0.0169	mg/kg	1	01/04/21 09:30	EPA 8082A	J
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 81 %		Limits: 60-125 %	1	01/04/21 09:30	EPA 8082A	
CB-3 (A0L0698-03RE1)		Matrix: Solid			Batch: 0121020		C-07	
Aroclor 1016	ND	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	
Aroclor 1221	ND	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	
Aroclor 1232	ND	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	
Aroclor 1242	0.111	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	P-12
Aroclor 1248	ND	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	
Aroclor 1254	0.0456	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	P-12
Aroclor 1260	0.0236	0.00816	0.0163	mg/kg	1	01/04/21 10:05	EPA 8082A	P-12
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 80 %		Limits: 60-125 %	1	01/04/21 10:05	EPA 8082A	
CB-4 (A0L0698-04RE1)		Matrix: Solid			Batch: 0121020		C-07	
Aroclor 1016	ND	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	
Aroclor 1221	ND	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	
Aroclor 1232	ND	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Polychlorinated Biphenyls by EPA 8082A**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4 (A0L0698-04RE1)				Matrix: Solid		Batch: 0121020		C-07
Aroclor 1242	0.0328	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	P-12
Aroclor 1248	ND	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	
Aroclor 1254	0.311	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	P-12
Aroclor 1260	0.0433	0.00926	0.0185	mg/kg	1	01/04/21 10:40	EPA 8082A	P-12
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 82 %		Limits: 60-125 %	1	01/04/21 10:40	EPA 8082A	
CB-4_DUP (A0L0698-05RE1)				Matrix: Solid		Batch: 0121020		C-07
Aroclor 1016	ND	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	P-12
Aroclor 1221	ND	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1232	ND	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1242	0.0482	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1248	ND	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	
Aroclor 1254	0.240	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	P-12
Aroclor 1260	0.0588	0.00766	0.0153	mg/kg	1	01/04/21 08:19	EPA 8082A	P-12
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 83 %		Limits: 60-125 %	1	01/04/21 08:19	EPA 8082A	
CB-5 (A0L0698-06)				Matrix: Solid		Batch: 0121020		C-07
Aroclor 1016	ND	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Aroclor 1221	ND	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Aroclor 1232	ND	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Aroclor 1242	ND	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Aroclor 1248	ND	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Aroclor 1254	1.48	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Aroclor 1260	ND	0.0962	0.192	mg/kg	10	12/31/20 21:38	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 82 %		Limits: 60-125 %	10	12/31/20 21:38	EPA 8082A	
CB-6 (A0L0698-07RE1)				Matrix: Solid		Batch: 0121020		C-07
Aroclor 1016	ND	0.0196	0.0196	mg/kg	1	01/04/21 08:54	EPA 8082A	R-02
Aroclor 1221	ND	0.0196	0.0196	mg/kg	1	01/04/21 08:54	EPA 8082A	
Aroclor 1232	ND	0.0604	0.0604	mg/kg	1	01/04/21 08:54	EPA 8082A	
Aroclor 1242	ND	0.0196	0.0196	mg/kg	1	01/04/21 08:54	EPA 8082A	
Aroclor 1248	ND	0.0196	0.0196	mg/kg	1	01/04/21 08:54	EPA 8082A	
Aroclor 1254	0.0400	0.00980	0.0196	mg/kg	1	01/04/21 08:54	EPA 8082A	P-12

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Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-6 (A0L0698-07RE1)		Matrix: Solid		Batch: 0121020		C-07		
Aroclor 1260	0.0217	0.00980	0.0196	mg/kg	1	01/04/21 08:54	EPA 8082A	P-12
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 60-125 %</i>	<i>1</i>	<i>01/04/21 08:54</i>	<i>EPA 8082A</i>	
CB-7 (A0L0698-08RE1)		Matrix: Solid		Batch: 0121020		C-07		
Aroclor 1016	ND	0.00966	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1221	ND	0.0193	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1232	ND	0.0193	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1242	ND	0.00966	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1248	ND	0.0193	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	
Aroclor 1254	0.0531	0.00966	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	P-12
Aroclor 1260	0.0502	0.00966	0.0193	mg/kg	1	01/04/21 09:30	EPA 8082A	P-12
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 60-125 %</i>	<i>1</i>	<i>01/04/21 09:30</i>	<i>EPA 8082A</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Aldrin	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
alpha-BHC	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
beta-BHC	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
delta-BHC	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
gamma-BHC (Lindane)	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
cis-Chlordane	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
trans-Chlordane	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
4,4'-DDD	ND	0.0479	0.0479	mg/kg	2	12/31/20 13:55	EPA 8081B	R-02
4,4'-DDE	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
4,4'-DDT	ND	0.0331	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Dieldrin	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Endosulfan I	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Endosulfan II	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Endosulfan sulfate	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Endrin	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Endrin Aldehyde	ND	0.0331	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Endrin ketone	ND	0.0331	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Heptachlor	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Heptachlor epoxide	ND	0.0165	0.0331	mg/kg	2	12/31/20 13:55	EPA 8081B	
Methoxychlor	ND	0.0496	0.0992	mg/kg	2	12/31/20 13:55	EPA 8081B	
Chlordane (Technical)	ND	0.496	0.992	mg/kg	2	12/31/20 13:55	EPA 8081B	
Toxaphene (Total)	ND	0.496	0.992	mg/kg	2	12/31/20 13:55	EPA 8081B	
<i>Surrogate: 2,4,5,6-TCMX (Surr)</i>		<i>Recovery: 69 %</i>		<i>Limits: 42-129 %</i>	2	12/31/20 13:55	EPA 8081B	
<i>Decachlorobiphenyl (Surr)</i>		<i>124 %</i>		<i>55-130 %</i>	2	12/31/20 13:55	EPA 8081B	

CB-2 (A0L0698-02RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Aldrin	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
alpha-BHC	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
beta-BHC	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
delta-BHC	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
cis-Chlordane	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
trans-Chlordane	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-2 (A0L0698-02RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
4,4'-DDD	ND	0.0157	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
4,4'-DDE	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
4,4'-DDT	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Dieldrin	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Endosulfan I	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Endosulfan II	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Endosulfan sulfate	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Endrin	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Endrin Aldehyde	ND	0.0157	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Endrin ketone	ND	0.0157	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Heptachlor	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Heptachlor epoxide	ND	0.00784	0.0157	mg/kg	1	12/31/20 15:04	EPA 8081B	
Methoxychlor	ND	0.0235	0.0471	mg/kg	1	12/31/20 15:04	EPA 8081B	
Chlordane (Technical)	ND	0.235	0.471	mg/kg	1	12/31/20 15:04	EPA 8081B	
Toxaphene (Total)	ND	0.235	0.471	mg/kg	1	12/31/20 15:04	EPA 8081B	
<i>Surrogate: 2,4,5,6-TCMX (Surr)</i>		<i>Recovery: 57 %</i>		<i>Limits: 42-129 %</i>	<i>1</i>	<i>12/31/20 15:04</i>	<i>EPA 8081B</i>	
<i>Decachlorobiphenyl (Surr)</i>		<i>129 %</i>		<i>55-130 %</i>	<i>1</i>	<i>12/31/20 15:04</i>	<i>EPA 8081B</i>	
CB-3 (A0L0698-03RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Aldrin	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
alpha-BHC	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
beta-BHC	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
delta-BHC	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
cis-Chlordane	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
trans-Chlordane	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
4,4'-DDD	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
4,4'-DDE	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
4,4'-DDT	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Dieldrin	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Endosulfan I	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Endosulfan II	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Endosulfan sulfate	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-3 (A0L0698-03RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Endrin	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Endrin Aldehyde	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Endrin ketone	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Heptachlor	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Heptachlor epoxide	ND	0.00930	0.0186	mg/kg	1	12/31/20 13:19	EPA 8081B	
Methoxychlor	ND	0.0279	0.0558	mg/kg	1	12/31/20 13:19	EPA 8081B	
Chlordane (Technical)	ND	0.279	0.558	mg/kg	1	12/31/20 13:19	EPA 8081B	
Toxaphene (Total)	ND	0.279	0.558	mg/kg	1	12/31/20 13:19	EPA 8081B	
<i>Surrogate: 2,4,5,6-TCMX (Surr)</i>		<i>Recovery: 65 %</i>		<i>Limits: 42-129 %</i>	<i>1</i>	<i>12/31/20 13:19</i>	<i>EPA 8081B</i>	
<i>Decachlorobiphenyl (Surr)</i>		<i>91 %</i>		<i>55-130 %</i>	<i>1</i>	<i>12/31/20 13:19</i>	<i>EPA 8081B</i>	
CB-4 (A0L0698-04RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Aldrin	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
alpha-BHC	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
beta-BHC	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
delta-BHC	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
cis-Chlordane	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
trans-Chlordane	ND	0.0264	0.0264	mg/kg	1	12/31/20 13:53	EPA 8081B	R-02
4,4'-DDD	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
4,4'-DDE	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
4,4'-DDT	ND	0.0189	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Dieldrin	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Endosulfan I	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Endosulfan II	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Endosulfan sulfate	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Endrin	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Endrin Aldehyde	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Endrin ketone	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Heptachlor	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Heptachlor epoxide	ND	0.00943	0.0189	mg/kg	1	12/31/20 13:53	EPA 8081B	
Methoxychlor	ND	0.0283	0.0566	mg/kg	1	12/31/20 13:53	EPA 8081B	
Chlordane (Technical)	ND	0.283	0.566	mg/kg	1	12/31/20 13:53	EPA 8081B	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4 (A0L0698-04RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Toxaphene (Total)	ND	0.283	0.566	mg/kg	1	12/31/20 13:53	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		Recovery: 37 %	Limits: 42-129 %	1	12/31/20 13:53	EPA 8081B	S-06	
Decachlorobiphenyl (Surr)		79 %	55-130 %	1	12/31/20 13:53	EPA 8081B		
CB-4_DUP (A0L0698-05RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Aldrin	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
alpha-BHC	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
beta-BHC	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
delta-BHC	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
cis-Chlordane	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
trans-Chlordane	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
4,4'-DDD	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
4,4'-DDE	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
4,4'-DDT	ND	0.0192	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Dieldrin	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Endosulfan I	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Endosulfan II	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Endosulfan sulfate	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Endrin	ND	0.0192	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Endrin Aldehyde	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Endrin ketone	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Heptachlor	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Heptachlor epoxide	ND	0.00962	0.0192	mg/kg	1	12/31/20 14:27	EPA 8081B	
Methoxychlor	ND	0.0288	0.0577	mg/kg	1	12/31/20 14:27	EPA 8081B	
Chlordane (Technical)	ND	0.288	0.577	mg/kg	1	12/31/20 14:27	EPA 8081B	
Toxaphene (Total)	ND	0.288	0.577	mg/kg	1	12/31/20 14:27	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		Recovery: 66 %	Limits: 42-129 %	1	12/31/20 14:27	EPA 8081B		
Decachlorobiphenyl (Surr)		99 %	55-130 %	1	12/31/20 14:27	EPA 8081B		
CB-5 (A0L0698-06RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
Aldrin	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
alpha-BHC	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
beta-BHC	ND	0.0284	0.0284	mg/kg	1	12/31/20 15:01	EPA 8081B	R-02

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-5 (A0L0698-06RE1)		Matrix: Solid			Batch: 0121015		C-05, R-04	
delta-BHC	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
cis-Chlordane	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
trans-Chlordane	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
4,4'-DDD	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
4,4'-DDE	ND	0.0196	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
4,4'-DDT	ND	0.0500	0.0500	mg/kg	1	12/31/20 15:01	EPA 8081B	R-02
Dieldrin	ND	0.0196	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Endosulfan I	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Endosulfan II	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Endosulfan sulfate	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Endrin	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Endrin Aldehyde	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Endrin ketone	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Heptachlor	ND	0.00980	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Heptachlor epoxide	ND	0.0196	0.0196	mg/kg	1	12/31/20 15:01	EPA 8081B	
Methoxychlor	ND	0.0294	0.0588	mg/kg	1	12/31/20 15:01	EPA 8081B	
Chlordane (Technical)	ND	0.294	0.588	mg/kg	1	12/31/20 15:01	EPA 8081B	
Toxaphene (Total)	ND	0.294	0.588	mg/kg	1	12/31/20 15:01	EPA 8081B	
Surrogate: 2,4,5,6-TCMX (Surr)		Recovery: 54 %		Limits: 42-129 %	1	12/31/20 15:01	EPA 8081B	
Decachlorobiphenyl (Surr)		88 %		55-130 %	1	12/31/20 15:01	EPA 8081B	

CB-6 (A0L0698-07RE1)		Matrix: Solid			Batch: 0121015		C-05	
Aldrin	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
alpha-BHC	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
beta-BHC	ND	0.0137	0.0137	mg/kg	1	01/04/21 13:20	EPA 8081B	R-02
delta-BHC	ND	0.00943	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
cis-Chlordane	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
trans-Chlordane	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
4,4'-DDD	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
4,4'-DDE	ND	0.00943	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
4,4'-DDT	ND	0.00943	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-6 (A0L0698-07RE1)		Matrix: Solid			Batch: 0121015		C-05	
Dieldrin	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Endosulfan I	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Endosulfan II	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Endosulfan sulfate	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Endrin	ND	0.00943	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Endrin Aldehyde	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Endrin ketone	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Heptachlor	ND	0.00943	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Heptachlor epoxide	ND	0.00472	0.00943	mg/kg	1	01/04/21 13:20	EPA 8081B	
Methoxychlor	ND	0.0142	0.0283	mg/kg	1	01/04/21 13:20	EPA 8081B	
Chlordane (Technical)	ND	0.142	0.283	mg/kg	1	01/04/21 13:20	EPA 8081B	
Toxaphene (Total)	ND	0.142	0.283	mg/kg	1	01/04/21 13:20	EPA 8081B	
<i>Surrogate: 2,4,5,6-TCMX (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 42-129 %</i>	<i>1</i>	<i>01/04/21 13:20</i>	<i>EPA 8081B</i>	
<i>Decachlorobiphenyl (Surr)</i>		<i>92 %</i>		<i>55-130 %</i>	<i>1</i>	<i>01/04/21 13:20</i>	<i>EPA 8081B</i>	
CB-7 (A0L0698-08RE1)		Matrix: Solid			Batch: 0121015		C-05	
Aldrin	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
alpha-BHC	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
beta-BHC	ND	0.00866	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
delta-BHC	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
gamma-BHC (Lindane)	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
cis-Chlordane	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
trans-Chlordane	ND	0.0130	0.0130	mg/kg	1	01/04/21 13:37	EPA 8081B	R-02
4,4'-DDD	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
4,4'-DDE	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
4,4'-DDT	ND	0.00866	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Dieldrin	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Endosulfan I	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Endosulfan II	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Endosulfan sulfate	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Endrin	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Endrin Aldehyde	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Endrin ketone	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-7 (A0L0698-08RE1)		Matrix: Solid			Batch: 0121015		C-05	
Heptachlor	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Heptachlor epoxide	ND	0.00433	0.00866	mg/kg	1	01/04/21 13:37	EPA 8081B	
Methoxychlor	ND	0.0130	0.0260	mg/kg	1	01/04/21 13:37	EPA 8081B	
Chlordane (Technical)	ND	0.130	0.260	mg/kg	1	01/04/21 13:37	EPA 8081B	
Toxaphene (Total)	ND	0.130	0.260	mg/kg	1	01/04/21 13:37	EPA 8081B	
<i>Surrogate: 2,4,5,6-TCMX (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 42-129 %</i>	<i>1</i>	<i>01/04/21 13:37</i>	<i>EPA 8081B</i>	
<i>Decachlorobiphenyl (Surr)</i>		<i>92 %</i>		<i>55-130 %</i>	<i>1</i>	<i>01/04/21 13:37</i>	<i>EPA 8081B</i>	

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Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)		Matrix: Solid			Batch: 0120994			
Acenaphthene	0.957	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	J, Q-42
Acenaphthylene	ND	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Anthracene	3.07	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Benz(a)anthracene	14.4	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Benzo(a)pyrene	21.4	1.41	2.82	mg/kg	40	12/30/20 17:54	EPA 8270E	
Benzo(b)fluoranthene	27.3	1.41	2.82	mg/kg	40	12/30/20 17:54	EPA 8270E	M-05
Benzo(k)fluoranthene	18.6	1.41	2.82	mg/kg	40	12/30/20 17:54	EPA 8270E	M-05
Benzo(g,h,i)perylene	21.1	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Chrysene	26.6	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Dibenz(a,h)anthracene	2.90	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Fluoranthene	41.2	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Fluorene	ND	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	Q-42
Indeno(1,2,3-cd)pyrene	21.1	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
1-Methylnaphthalene	ND	1.88	3.75	mg/kg	40	12/30/20 17:54	EPA 8270E	
2-Methylnaphthalene	ND	1.88	3.75	mg/kg	40	12/30/20 17:54	EPA 8270E	
Naphthalene	ND	1.88	3.75	mg/kg	40	12/30/20 17:54	EPA 8270E	
Phenanthrene	17.2	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Pyrene	37.4	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Carbazole	5.29	1.41	2.82	mg/kg	40	12/30/20 17:54	EPA 8270E	
Dibenzofuran	ND	0.937	1.88	mg/kg	40	12/30/20 17:54	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	14.1	28.2	mg/kg	40	12/30/20 17:54	EPA 8270E	
Butyl benzyl phthalate	ND	9.37	18.8	mg/kg	40	12/30/20 17:54	EPA 8270E	
Diethylphthalate	ND	9.37	18.8	mg/kg	40	12/30/20 17:54	EPA 8270E	
Dimethylphthalate	ND	9.37	18.8	mg/kg	40	12/30/20 17:54	EPA 8270E	
Di-n-butylphthalate	ND	9.37	18.8	mg/kg	40	12/30/20 17:54	EPA 8270E	
Di-n-octyl phthalate	ND	9.37	18.8	mg/kg	40	12/30/20 17:54	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	47 %	Limits:	37-122 %	40	12/30/20 17:54	EPA 8270E S-05
2-Fluorobiphenyl (Surr)			68 %		44-120 %	40	12/30/20 17:54	EPA 8270E S-05
Phenol-d6 (Surr)			61 %		33-122 %	40	12/30/20 17:54	EPA 8270E S-05
p-Terphenyl-d14 (Surr)			78 %		54-127 %	40	12/30/20 17:54	EPA 8270E S-05
2-Fluorophenol (Surr)			58 %		35-120 %	40	12/30/20 17:54	EPA 8270E S-05
2,4,6-Tribromophenol (Surr)			187 %		39-132 %	40	12/30/20 17:54	EPA 8270E S-05

CB-2 (A0L0698-02)

Matrix: Solid

Batch: 0120994

Apex Laboratories

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-2 (A0L0698-02)		Matrix: Solid			Batch: 0120994			
Acenaphthene	ND	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Acenaphthylene	ND	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Anthracene	ND	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Benz(a)anthracene	2.65	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Benzo(a)pyrene	4.16	1.24	2.49	mg/kg	40	12/30/20 20:22	EPA 8270E	
Benzo(b)fluoranthene	4.59	1.24	2.49	mg/kg	40	12/30/20 20:22	EPA 8270E	M-05
Benzo(k)fluoranthene	3.69	1.24	2.49	mg/kg	40	12/30/20 20:22	EPA 8270E	M-05
Benzo(g,h,i)perylene	2.97	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Chrysene	4.64	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Fluoranthene	7.24	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Fluorene	ND	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Indeno(1,2,3-cd)pyrene	2.87	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
1-Methylnaphthalene	ND	1.66	3.32	mg/kg	40	12/30/20 20:22	EPA 8270E	
2-Methylnaphthalene	ND	1.66	3.32	mg/kg	40	12/30/20 20:22	EPA 8270E	
Naphthalene	ND	1.66	3.32	mg/kg	40	12/30/20 20:22	EPA 8270E	
Phenanthrene	2.49	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Pyrene	6.71	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Carbazole	ND	1.24	2.49	mg/kg	40	12/30/20 20:22	EPA 8270E	
Dibenzofuran	ND	0.828	1.66	mg/kg	40	12/30/20 20:22	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	12.4	24.9	mg/kg	40	12/30/20 20:22	EPA 8270E	
Butyl benzyl phthalate	ND	8.28	16.6	mg/kg	40	12/30/20 20:22	EPA 8270E	
Diethylphthalate	ND	8.28	16.6	mg/kg	40	12/30/20 20:22	EPA 8270E	
Dimethylphthalate	ND	8.28	16.6	mg/kg	40	12/30/20 20:22	EPA 8270E	
Di-n-butylphthalate	ND	8.28	16.6	mg/kg	40	12/30/20 20:22	EPA 8270E	
Di-n-octyl phthalate	ND	8.28	16.6	mg/kg	40	12/30/20 20:22	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery: 54 %		Limits: 37-122 %	40	12/30/20 20:22	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)		69 %		44-120 %	40	12/30/20 20:22	EPA 8270E	S-05
Phenol-d6 (Surr)		57 %		33-122 %	40	12/30/20 20:22	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)		83 %		54-127 %	40	12/30/20 20:22	EPA 8270E	S-05
2-Fluorophenol (Surr)		56 %		35-120 %	40	12/30/20 20:22	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)		187 %		39-132 %	40	12/30/20 20:22	EPA 8270E	S-05

CB-3 (A0L0698-03)**Matrix: Solid****Batch: 0120994**

Apex Laboratories

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Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
CB-3 (A0L0698-03)		Matrix: Solid			Batch: 0120994				
Acenaphthene	ND	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Acenaphthylene	ND	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Anthracene	ND	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Benz(a)anthracene	1.73	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E	J	
Benzo(a)pyrene	2.76	1.30	2.61	mg/kg	40	12/30/20 20:58	EPA 8270E		
Benzo(b)fluoranthene	3.16	1.30	2.61	mg/kg	40	12/30/20 20:58	EPA 8270E	M-05	
Benzo(k)fluoranthene	2.49	1.30	2.61	mg/kg	40	12/30/20 20:58	EPA 8270E	J	
Benzo(g,h,i)perylene	1.74	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Chrysene	2.71	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Dibenz(a,h)anthracene	ND	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Fluoranthene	3.91	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Fluorene	ND	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Indeno(1,2,3-cd)pyrene	1.74	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
1-Methylnaphthalene	ND	1.74	3.48	mg/kg	40	12/30/20 20:58	EPA 8270E		
2-Methylnaphthalene	ND	1.74	3.48	mg/kg	40	12/30/20 20:58	EPA 8270E		
Naphthalene	ND	1.74	3.48	mg/kg	40	12/30/20 20:58	EPA 8270E		
Phenanthrene	1.62	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E	J	
Pyrene	3.62	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Carbazole	ND	1.30	2.61	mg/kg	40	12/30/20 20:58	EPA 8270E		
Dibenzofuran	ND	0.867	1.74	mg/kg	40	12/30/20 20:58	EPA 8270E		
Bis(2-ethylhexyl)phthalate	ND	13.0	26.1	mg/kg	40	12/30/20 20:58	EPA 8270E		
Butyl benzyl phthalate	ND	8.67	17.4	mg/kg	40	12/30/20 20:58	EPA 8270E		
Diethylphthalate	ND	8.67	17.4	mg/kg	40	12/30/20 20:58	EPA 8270E		
Dimethylphthalate	ND	8.67	17.4	mg/kg	40	12/30/20 20:58	EPA 8270E		
Di-n-butylphthalate	ND	8.67	17.4	mg/kg	40	12/30/20 20:58	EPA 8270E		
Di-n-octyl phthalate	ND	8.67	17.4	mg/kg	40	12/30/20 20:58	EPA 8270E		
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	55 %	Limits:	37-122 %	40	12/30/20 20:58	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			68 %		44-120 %	40	12/30/20 20:58	EPA 8270E	S-05
Phenol-d6 (Surr)			64 %		33-122 %	40	12/30/20 20:58	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			86 %		54-127 %	40	12/30/20 20:58	EPA 8270E	S-05
2-Fluorophenol (Surr)			59 %		35-120 %	40	12/30/20 20:58	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			188 %		39-132 %	40	12/30/20 20:58	EPA 8270E	S-05

CB-4 (A0L0698-04RE1)

Matrix: Solid

Batch: 0120994

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GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4 (A0L0698-04RE1)		Matrix: Solid			Batch: 0120994			
Acenaphthene	ND	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Acenaphthylene	ND	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Anthracene	ND	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Benz(a)anthracene	0.570	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	J
Benzo(a)pyrene	1.22	0.685	1.37	mg/kg	20	12/31/20 21:19	EPA 8270E	J
Benzo(b)fluoranthene	1.40	0.685	1.37	mg/kg	20	12/31/20 21:19	EPA 8270E	M-05
Benzo(k)fluoranthene	1.02	0.685	1.37	mg/kg	20	12/31/20 21:19	EPA 8270E	J
Benzo(g,h,i)perylene	0.550	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	J
Chrysene	1.08	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Fluoranthene	1.28	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Fluorene	ND	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.663	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	J
1-Methylnaphthalene	ND	0.914	1.83	mg/kg	20	12/31/20 21:19	EPA 8270E	
2-Methylnaphthalene	ND	0.914	1.83	mg/kg	20	12/31/20 21:19	EPA 8270E	
Naphthalene	ND	0.914	1.83	mg/kg	20	12/31/20 21:19	EPA 8270E	
Phenanthrene	0.638	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	J
Pyrene	1.36	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Carbazole	ND	0.685	1.37	mg/kg	20	12/31/20 21:19	EPA 8270E	
Dibenzofuran	ND	0.455	0.914	mg/kg	20	12/31/20 21:19	EPA 8270E	
Bis(2-ethylhexyl)phthalate	10.3	6.85	13.7	mg/kg	20	12/31/20 21:19	EPA 8270E	J
Butyl benzyl phthalate	ND	4.55	9.14	mg/kg	20	12/31/20 21:19	EPA 8270E	
Diethylphthalate	ND	4.55	9.14	mg/kg	20	12/31/20 21:19	EPA 8270E	
Dimethylphthalate	ND	4.55	9.14	mg/kg	20	12/31/20 21:19	EPA 8270E	
Di-n-butylphthalate	ND	4.55	9.14	mg/kg	20	12/31/20 21:19	EPA 8270E	
Di-n-octyl phthalate	ND	4.55	9.14	mg/kg	20	12/31/20 21:19	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>46 %</i>	<i>Limits:</i>	<i>37-122 %</i>	<i>20</i>	<i>12/31/20 21:19</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>64 %</i>		<i>44-120 %</i>	<i>20</i>	<i>12/31/20 21:19</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>			<i>62 %</i>		<i>33-122 %</i>	<i>20</i>	<i>12/31/20 21:19</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>87 %</i>		<i>54-127 %</i>	<i>20</i>	<i>12/31/20 21:19</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>			<i>58 %</i>		<i>35-120 %</i>	<i>20</i>	<i>12/31/20 21:19</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>137 %</i>		<i>39-132 %</i>	<i>20</i>	<i>12/31/20 21:19</i>	<i>EPA 8270E</i>
CB-4_DUP (A0L0698-05RE1)		Matrix: Solid			Batch: 0120994			

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS**Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4_DUP (A0L0698-05RE1)		Matrix: Solid			Batch: 0120994			
Acenaphthene	ND	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Acenaphthylene	ND	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Anthracene	ND	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Benz(a)anthracene	0.572	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	J
Benzo(a)pyrene	1.18	0.577	1.15	mg/kg	20	12/31/20 21:55	EPA 8270E	
Benzo(b)fluoranthene	1.39	0.577	1.15	mg/kg	20	12/31/20 21:55	EPA 8270E	M-05
Benzo(k)fluoranthene	0.978	0.577	1.15	mg/kg	20	12/31/20 21:55	EPA 8270E	J
Benzo(g,h,i)perylene	0.580	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	J
Chrysene	1.05	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Fluoranthene	1.32	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Fluorene	ND	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.760	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	J
1-Methylnaphthalene	ND	0.770	1.54	mg/kg	20	12/31/20 21:55	EPA 8270E	
2-Methylnaphthalene	ND	0.770	1.54	mg/kg	20	12/31/20 21:55	EPA 8270E	
Naphthalene	ND	0.770	1.54	mg/kg	20	12/31/20 21:55	EPA 8270E	
Phenanthrene	0.687	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	J
Pyrene	1.41	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Carbazole	ND	0.577	1.15	mg/kg	20	12/31/20 21:55	EPA 8270E	
Dibenzofuran	ND	0.384	0.770	mg/kg	20	12/31/20 21:55	EPA 8270E	
Bis(2-ethylhexyl)phthalate	9.18	5.77	11.5	mg/kg	20	12/31/20 21:55	EPA 8270E	J
Butyl benzyl phthalate	ND	3.84	7.70	mg/kg	20	12/31/20 21:55	EPA 8270E	
Diethylphthalate	ND	3.84	7.70	mg/kg	20	12/31/20 21:55	EPA 8270E	
Dimethylphthalate	ND	3.84	7.70	mg/kg	20	12/31/20 21:55	EPA 8270E	
Di-n-butylphthalate	ND	3.84	7.70	mg/kg	20	12/31/20 21:55	EPA 8270E	
Di-n-octyl phthalate	ND	3.84	7.70	mg/kg	20	12/31/20 21:55	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>42 %</i>	<i>Limits:</i>	<i>37-122 %</i>	<i>20</i>	<i>12/31/20 21:55</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>66 %</i>		<i>44-120 %</i>	<i>20</i>	<i>12/31/20 21:55</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>			<i>64 %</i>		<i>33-122 %</i>	<i>20</i>	<i>12/31/20 21:55</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>82 %</i>		<i>54-127 %</i>	<i>20</i>	<i>12/31/20 21:55</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>			<i>59 %</i>		<i>35-120 %</i>	<i>20</i>	<i>12/31/20 21:55</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>139 %</i>		<i>39-132 %</i>	<i>20</i>	<i>12/31/20 21:55</i>	<i>EPA 8270E</i>

CB-5 (A0L0698-06RE1)**Matrix: Solid****Batch: 0120994**

Apex Laboratories

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-5 (A0L0698-06RE1)		Matrix: Solid			Batch: 0120994			
Acenaphthene	ND	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Acenaphthylene	ND	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Anthracene	ND	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Benz(a)anthracene	0.665	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	J
Benzo(a)pyrene	1.22	0.593	1.19	mg/kg	20	12/31/20 22:30	EPA 8270E	
Benzo(b)fluoranthene	1.40	0.593	1.19	mg/kg	20	12/31/20 22:30	EPA 8270E	M-05
Benzo(k)fluoranthene	0.954	0.593	1.19	mg/kg	20	12/31/20 22:30	EPA 8270E	J
Benzo(g,h,i)perylene	0.628	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	J
Chrysene	1.29	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Fluoranthene	1.32	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Fluorene	ND	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.647	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	J
1-Methylnaphthalene	ND	0.792	1.58	mg/kg	20	12/31/20 22:30	EPA 8270E	
2-Methylnaphthalene	ND	0.792	1.58	mg/kg	20	12/31/20 22:30	EPA 8270E	
Naphthalene	ND	0.792	1.58	mg/kg	20	12/31/20 22:30	EPA 8270E	
Phenanthrene	0.649	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	J
Pyrene	1.43	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Carbazole	ND	0.593	1.19	mg/kg	20	12/31/20 22:30	EPA 8270E	
Dibenzofuran	ND	0.394	0.792	mg/kg	20	12/31/20 22:30	EPA 8270E	
Bis(2-ethylhexyl)phthalate	6.94	5.93	11.9	mg/kg	20	12/31/20 22:30	EPA 8270E	J
Butyl benzyl phthalate	ND	3.94	7.92	mg/kg	20	12/31/20 22:30	EPA 8270E	
Diethylphthalate	ND	3.94	7.92	mg/kg	20	12/31/20 22:30	EPA 8270E	
Dimethylphthalate	ND	3.94	7.92	mg/kg	20	12/31/20 22:30	EPA 8270E	
Di-n-butylphthalate	ND	3.94	7.92	mg/kg	20	12/31/20 22:30	EPA 8270E	
Di-n-octyl phthalate	ND	3.94	7.92	mg/kg	20	12/31/20 22:30	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>57 %</i>	<i>Limits:</i>	<i>37-122 %</i>	<i>20</i>	<i>12/31/20 22:30</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>76 %</i>		<i>44-120 %</i>	<i>20</i>	<i>12/31/20 22:30</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>			<i>73 %</i>		<i>33-122 %</i>	<i>20</i>	<i>12/31/20 22:30</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>90 %</i>		<i>54-127 %</i>	<i>20</i>	<i>12/31/20 22:30</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>			<i>68 %</i>		<i>35-120 %</i>	<i>20</i>	<i>12/31/20 22:30</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>145 %</i>		<i>39-132 %</i>	<i>20</i>	<i>12/31/20 22:30</i>	<i>EPA 8270E</i>

CB-6 (A0L0698-07)

Matrix: Solid

Batch: 0120994

Apex Laboratories

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Philip Nerenberg, Lab Director



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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-6 (A0L0698-07)		Matrix: Solid			Batch: 0120994			
Acenaphthene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Acenaphthylene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Anthracene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Benz(a)anthracene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Benzo(a)pyrene	ND	0.531	1.06	mg/kg	40	12/30/20 23:21	EPA 8270E	
Benzo(b)fluoranthene	ND	0.531	1.06	mg/kg	40	12/30/20 23:21	EPA 8270E	
Benzo(k)fluoranthene	ND	0.531	1.06	mg/kg	40	12/30/20 23:21	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Chrysene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Fluoranthene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Fluorene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
1-Methylnaphthalene	ND	0.709	1.42	mg/kg	40	12/30/20 23:21	EPA 8270E	
2-Methylnaphthalene	ND	0.709	1.42	mg/kg	40	12/30/20 23:21	EPA 8270E	
Naphthalene	ND	0.709	1.42	mg/kg	40	12/30/20 23:21	EPA 8270E	
Phenanthrene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Pyrene	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Carbazole	ND	0.531	1.06	mg/kg	40	12/30/20 23:21	EPA 8270E	
Dibenzofuran	ND	0.353	0.709	mg/kg	40	12/30/20 23:21	EPA 8270E	
Bis(2-ethylhexyl)phthalate	13.6	5.31	10.6	mg/kg	40	12/30/20 23:21	EPA 8270E	
Butyl benzyl phthalate	ND	3.53	7.09	mg/kg	40	12/30/20 23:21	EPA 8270E	
Diethylphthalate	ND	3.53	7.09	mg/kg	40	12/30/20 23:21	EPA 8270E	
Dimethylphthalate	ND	3.53	7.09	mg/kg	40	12/30/20 23:21	EPA 8270E	
Di-n-butylphthalate	ND	3.53	7.09	mg/kg	40	12/30/20 23:21	EPA 8270E	
Di-n-octyl phthalate	ND	3.53	7.09	mg/kg	40	12/30/20 23:21	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	24 %	<i>Limits:</i>	37-122 %	40	12/30/20 23:21	EPA 8270E S-05
<i>2-Fluorobiphenyl (Surr)</i>			47 %		44-120 %	40	12/30/20 23:21	EPA 8270E S-05
<i>Phenol-d6 (Surr)</i>			48 %		33-122 %	40	12/30/20 23:21	EPA 8270E S-05
<i>p-Terphenyl-d14 (Surr)</i>			62 %		54-127 %	40	12/30/20 23:21	EPA 8270E S-05
<i>2-Fluorophenol (Surr)</i>			42 %		35-120 %	40	12/30/20 23:21	EPA 8270E S-05
<i>2,4,6-Tribromophenol (Surr)</i>			102 %		39-132 %	40	12/30/20 23:21	EPA 8270E S-05

CB-7 (A0L0698-08)

Matrix: Solid

Batch: 0120994

Apex Laboratories

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-7 (A0L0698-08)		Matrix: Solid			Batch: 0120994			
Acenaphthene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Acenaphthylene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Anthracene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Benz(a)anthracene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Benzo(a)pyrene	ND	0.517	1.03	mg/kg	40	12/30/20 23:56	EPA 8270E	
Benzo(b)fluoranthene	ND	0.517	1.03	mg/kg	40	12/30/20 23:56	EPA 8270E	
Benzo(k)fluoranthene	ND	0.517	1.03	mg/kg	40	12/30/20 23:56	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Chrysene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Fluoranthene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Fluorene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
1-Methylnaphthalene	ND	0.691	1.38	mg/kg	40	12/30/20 23:56	EPA 8270E	
2-Methylnaphthalene	ND	0.691	1.38	mg/kg	40	12/30/20 23:56	EPA 8270E	
Naphthalene	ND	0.691	1.38	mg/kg	40	12/30/20 23:56	EPA 8270E	
Phenanthrene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Pyrene	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Carbazole	ND	0.517	1.03	mg/kg	40	12/30/20 23:56	EPA 8270E	
Dibenzofuran	ND	0.344	0.691	mg/kg	40	12/30/20 23:56	EPA 8270E	
Bis(2-ethylhexyl)phthalate	12.9	5.17	10.3	mg/kg	40	12/30/20 23:56	EPA 8270E	
Butyl benzyl phthalate	ND	3.44	6.91	mg/kg	40	12/30/20 23:56	EPA 8270E	
Diethylphthalate	ND	3.44	6.91	mg/kg	40	12/30/20 23:56	EPA 8270E	
Dimethylphthalate	ND	3.44	6.91	mg/kg	40	12/30/20 23:56	EPA 8270E	
Di-n-butylphthalate	ND	3.44	6.91	mg/kg	40	12/30/20 23:56	EPA 8270E	
Di-n-octyl phthalate	ND	3.44	6.91	mg/kg	40	12/30/20 23:56	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>14 %</i>	<i>Limits:</i>	<i>37-122 %</i>	<i>40</i>	<i>12/30/20 23:56</i>	<i>EPA 8270E S-05</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>54 %</i>		<i>44-120 %</i>	<i>40</i>	<i>12/30/20 23:56</i>	<i>EPA 8270E S-05</i>
<i>Phenol-d6 (Surr)</i>			<i>53 %</i>		<i>33-122 %</i>	<i>40</i>	<i>12/30/20 23:56</i>	<i>EPA 8270E S-05</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>79 %</i>		<i>54-127 %</i>	<i>40</i>	<i>12/30/20 23:56</i>	<i>EPA 8270E S-05</i>
<i>2-Fluorophenol (Surr)</i>			<i>45 %</i>		<i>35-120 %</i>	<i>40</i>	<i>12/30/20 23:56</i>	<i>EPA 8270E S-05</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>110 %</i>		<i>39-132 %</i>	<i>40</i>	<i>12/30/20 23:56</i>	<i>EPA 8270E S-05</i>

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS**Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)		Matrix: Solid						
Batch: 1012474								
Antimony	0.956	0.503	1.01	mg/kg	10	01/04/21 15:50	EPA 6020B	J
Arsenic	1.59	0.503	1.01	mg/kg	10	01/04/21 15:50	EPA 6020B	
Beryllium	ND	0.101	0.201	mg/kg	10	01/04/21 15:50	EPA 6020B	
Cadmium	0.265	0.101	0.201	mg/kg	10	01/04/21 15:50	EPA 6020B	
Chromium	30.4	0.503	1.01	mg/kg	10	01/04/21 15:50	EPA 6020B	
Copper	41.0	1.01	2.01	mg/kg	10	01/04/21 15:50	EPA 6020B	
Lead	19.0	0.101	0.201	mg/kg	10	01/04/21 15:50	EPA 6020B	
Mercury	ND	0.0402	0.0805	mg/kg	10	01/04/21 15:50	EPA 6020B	
Nickel	13.8	1.01	2.01	mg/kg	10	01/04/21 15:50	EPA 6020B	
Selenium	ND	0.503	1.01	mg/kg	10	01/04/21 15:50	EPA 6020B	
Silver	ND	0.101	0.201	mg/kg	10	01/04/21 15:50	EPA 6020B	
Thallium	ND	0.101	0.201	mg/kg	10	01/04/21 15:50	EPA 6020B	
Zinc	224	2.01	4.02	mg/kg	10	01/04/21 15:50	EPA 6020B	
CB-2 (A0L0698-02)		Matrix: Solid						
Batch: 1012474								
Antimony	1.07	0.501	1.00	mg/kg	10	01/04/21 15:55	EPA 6020B	
Arsenic	3.65	0.501	1.00	mg/kg	10	01/04/21 15:55	EPA 6020B	
Beryllium	ND	0.100	0.200	mg/kg	10	01/04/21 15:55	EPA 6020B	
Cadmium	1.18	0.100	0.200	mg/kg	10	01/04/21 15:55	EPA 6020B	
Chromium	27.6	0.501	1.00	mg/kg	10	01/04/21 15:55	EPA 6020B	
Copper	87.8	1.00	2.00	mg/kg	10	01/04/21 15:55	EPA 6020B	
Lead	29.0	0.100	0.200	mg/kg	10	01/04/21 15:55	EPA 6020B	
Mercury	ND	0.0401	0.0802	mg/kg	10	01/04/21 15:55	EPA 6020B	
Nickel	22.3	1.00	2.00	mg/kg	10	01/04/21 15:55	EPA 6020B	
Selenium	ND	0.501	1.00	mg/kg	10	01/04/21 15:55	EPA 6020B	
Silver	ND	0.100	0.200	mg/kg	10	01/04/21 15:55	EPA 6020B	
Thallium	ND	0.100	0.200	mg/kg	10	01/04/21 15:55	EPA 6020B	
Zinc	383	2.00	4.01	mg/kg	10	01/04/21 15:55	EPA 6020B	
CB-3 (A0L0698-03)		Matrix: Solid						
Batch: 1012474								
Antimony	1.03	0.500	1.00	mg/kg	10	01/04/21 16:00	EPA 6020B	

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Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS**Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-3 (A0L0698-03)		Matrix: Solid						
Arsenic	1.77	0.500	1.00	mg/kg	10	01/04/21 16:00	EPA 6020B	
Beryllium	ND	0.100	0.200	mg/kg	10	01/04/21 16:00	EPA 6020B	
Cadmium	0.239	0.100	0.200	mg/kg	10	01/04/21 16:00	EPA 6020B	
Chromium	29.5	0.500	1.00	mg/kg	10	01/04/21 16:00	EPA 6020B	
Copper	51.6	1.00	2.00	mg/kg	10	01/04/21 16:00	EPA 6020B	
Lead	46.9	0.100	0.200	mg/kg	10	01/04/21 16:00	EPA 6020B	
Mercury	0.0531	0.0400	0.0800	mg/kg	10	01/04/21 16:00	EPA 6020B	J
Nickel	12.0	1.00	2.00	mg/kg	10	01/04/21 16:00	EPA 6020B	
Selenium	ND	0.500	1.00	mg/kg	10	01/04/21 16:00	EPA 6020B	
Silver	0.148	0.100	0.200	mg/kg	10	01/04/21 16:00	EPA 6020B	J
Thallium	ND	0.100	0.200	mg/kg	10	01/04/21 16:00	EPA 6020B	
CB-3 (A0L0698-03RE1)		Matrix: Solid						
Batch: 1012474								
Zinc	5860	10.0	20.0	mg/kg	50	01/05/21 12:58	EPA 6020B	
CB-4 (A0L0698-04)		Matrix: Solid						
Batch: 1012474								
Antimony	2.48	0.547	1.09	mg/kg	10	01/04/21 16:05	EPA 6020B	Q-42
Arsenic	3.43	0.547	1.09	mg/kg	10	01/04/21 16:05	EPA 6020B	
Beryllium	ND	0.109	0.219	mg/kg	10	01/04/21 16:05	EPA 6020B	
Cadmium	2.24	0.109	0.219	mg/kg	10	01/04/21 16:05	EPA 6020B	
Chromium	276	0.547	1.09	mg/kg	10	01/04/21 16:05	EPA 6020B	Q-42
Copper	143	1.09	2.19	mg/kg	10	01/04/21 16:05	EPA 6020B	Q-42
Lead	63.9	0.109	0.219	mg/kg	10	01/04/21 16:05	EPA 6020B	
Mercury	0.375	0.0438	0.0875	mg/kg	10	01/04/21 16:05	EPA 6020B	
Nickel	32.2	1.09	2.19	mg/kg	10	01/04/21 16:05	EPA 6020B	
Selenium	ND	0.547	1.09	mg/kg	10	01/04/21 16:05	EPA 6020B	
Silver	0.223	0.109	0.219	mg/kg	10	01/04/21 16:05	EPA 6020B	
Thallium	ND	0.109	0.219	mg/kg	10	01/04/21 16:05	EPA 6020B	
Zinc	606	2.19	4.38	mg/kg	10	01/04/21 16:05	EPA 6020B	Q-42
CB-4_DUP (A0L0698-05)		Matrix: Solid						
Batch: 1012474								

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-4_DUP (A0L0698-05)		Matrix: Solid						
Antimony	2.71	0.532	1.06	mg/kg	10	01/04/21 16:37	EPA 6020B	
Arsenic	3.89	0.532	1.06	mg/kg	10	01/04/21 16:37	EPA 6020B	
Beryllium	ND	0.106	0.213	mg/kg	10	01/04/21 16:37	EPA 6020B	
Cadmium	2.49	0.106	0.213	mg/kg	10	01/04/21 16:37	EPA 6020B	
Chromium	146	0.532	1.06	mg/kg	10	01/04/21 16:37	EPA 6020B	
Copper	153	1.06	2.13	mg/kg	10	01/04/21 16:37	EPA 6020B	
Lead	67.5	0.106	0.213	mg/kg	10	01/04/21 16:37	EPA 6020B	
Mercury	0.416	0.0426	0.0851	mg/kg	10	01/04/21 16:37	EPA 6020B	
Nickel	33.8	1.06	2.13	mg/kg	10	01/04/21 16:37	EPA 6020B	
Selenium	ND	0.532	1.06	mg/kg	10	01/04/21 16:37	EPA 6020B	
Silver	0.333	0.106	0.213	mg/kg	10	01/04/21 16:37	EPA 6020B	
Thallium	ND	0.106	0.213	mg/kg	10	01/04/21 16:37	EPA 6020B	
Zinc	661	2.13	4.26	mg/kg	10	01/04/21 16:37	EPA 6020B	
CB-5 (A0L0698-06)		Matrix: Solid						
Batch: 1012474								
Antimony	2.23	0.520	1.04	mg/kg	10	01/04/21 16:42	EPA 6020B	
Arsenic	1.78	0.520	1.04	mg/kg	10	01/04/21 16:42	EPA 6020B	
Beryllium	ND	0.104	0.208	mg/kg	10	01/04/21 16:42	EPA 6020B	
Cadmium	1.18	0.104	0.208	mg/kg	10	01/04/21 16:42	EPA 6020B	
Chromium	41.2	0.520	1.04	mg/kg	10	01/04/21 16:42	EPA 6020B	
Copper	107	1.04	2.08	mg/kg	10	01/04/21 16:42	EPA 6020B	
Lead	71.8	0.104	0.208	mg/kg	10	01/04/21 16:42	EPA 6020B	
Mercury	0.148	0.0416	0.0832	mg/kg	10	01/04/21 16:42	EPA 6020B	
Nickel	21.2	1.04	2.08	mg/kg	10	01/04/21 16:42	EPA 6020B	
Selenium	ND	0.520	1.04	mg/kg	10	01/04/21 16:42	EPA 6020B	
Silver	0.273	0.104	0.208	mg/kg	10	01/04/21 16:42	EPA 6020B	
Thallium	ND	0.104	0.208	mg/kg	10	01/04/21 16:42	EPA 6020B	
Zinc	1620	2.08	4.16	mg/kg	10	01/04/21 16:42	EPA 6020B	
CB-6 (A0L0698-07)		Matrix: Solid						
Batch: 1012474								
Antimony	0.593	0.538	1.08	mg/kg	10	01/04/21 16:47	EPA 6020B	J
Arsenic	2.30	0.538	1.08	mg/kg	10	01/04/21 16:47	EPA 6020B	

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9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-6 (A0L0698-07)		Matrix: Solid						
Beryllium	ND	0.108	0.215	mg/kg	10	01/04/21 16:47	EPA 6020B	
Cadmium	1.24	0.108	0.215	mg/kg	10	01/04/21 16:47	EPA 6020B	
Chromium	16.7	0.538	1.08	mg/kg	10	01/04/21 16:47	EPA 6020B	
Copper	92.0	1.08	2.15	mg/kg	10	01/04/21 16:47	EPA 6020B	
Lead	30.8	0.108	0.215	mg/kg	10	01/04/21 16:47	EPA 6020B	
Mercury	0.0843	0.0430	0.0860	mg/kg	10	01/04/21 16:47	EPA 6020B	J
Nickel	17.5	1.08	2.15	mg/kg	10	01/04/21 16:47	EPA 6020B	
Selenium	ND	0.538	1.08	mg/kg	10	01/04/21 16:47	EPA 6020B	
Silver	0.183	0.108	0.215	mg/kg	10	01/04/21 16:47	EPA 6020B	J
Thallium	ND	0.108	0.215	mg/kg	10	01/04/21 16:47	EPA 6020B	
Zinc	253	2.15	4.30	mg/kg	10	01/04/21 16:47	EPA 6020B	
CB-7 (A0L0698-08)		Matrix: Solid						
Batch: 1012474								
Antimony	1.28	0.519	1.04	mg/kg	10	01/04/21 16:53	EPA 6020B	
Arsenic	4.27	0.519	1.04	mg/kg	10	01/04/21 16:53	EPA 6020B	
Beryllium	ND	0.104	0.207	mg/kg	10	01/04/21 16:53	EPA 6020B	
Cadmium	1.15	0.104	0.207	mg/kg	10	01/04/21 16:53	EPA 6020B	
Chromium	34.4	0.519	1.04	mg/kg	10	01/04/21 16:53	EPA 6020B	
Copper	244	1.04	2.07	mg/kg	10	01/04/21 16:53	EPA 6020B	
Lead	24.0	0.104	0.207	mg/kg	10	01/04/21 16:53	EPA 6020B	
Mercury	0.197	0.0415	0.0830	mg/kg	10	01/04/21 16:53	EPA 6020B	
Nickel	62.9	1.04	2.07	mg/kg	10	01/04/21 16:53	EPA 6020B	
Selenium	ND	0.519	1.04	mg/kg	10	01/04/21 16:53	EPA 6020B	
Silver	0.175	0.104	0.207	mg/kg	10	01/04/21 16:53	EPA 6020B	J
Thallium	ND	0.104	0.207	mg/kg	10	01/04/21 16:53	EPA 6020B	
Zinc	1050	2.07	4.15	mg/kg	10	01/04/21 16:53	EPA 6020B	

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Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)				Matrix: Solid		Batch: 0120974		
% Solids	32.9	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-2 (A0L0698-02)				Matrix: Solid		Batch: 0120974		
% Solids	72.0	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-3 (A0L0698-03)				Matrix: Solid		Batch: 0120974		
% Solids	58.8	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-4 (A0L0698-04)				Matrix: Solid		Batch: 0120974		
% Solids	29.3	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-4_DUP (A0L0698-05)				Matrix: Solid		Batch: 0120933		
% Solids	26.6	1.00	1.00	%	1	12/30/20 07:25	EPA 8000D	
CB-5 (A0L0698-06)				Matrix: Solid		Batch: 0120974		
% Solids	32.4	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-6 (A0L0698-07)				Matrix: Solid		Batch: 0120974		
% Solids	33.5	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-7 (A0L0698-08)				Matrix: Solid		Batch: 0120974		
% Solids	40.2	1.00	1.00	%	1	12/31/20 07:21	EPA 8000D	

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120816 - EPA 3546 (Fuels)						Solid						
Blank (0120816-BLK1)			Prepared: 12/22/20 12:44		Analyzed: 12/23/20 02:31							
NWTPH-Dx												
Diesel	ND	9.09	25.0	mg/kg	1	---	---	---	---	---	---	
Oil	ND	18.2	50.0	mg/kg	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
LCS (0120816-BS1)			Prepared: 12/22/20 12:44		Analyzed: 12/23/20 02:51							
NWTPH-Dx												
Diesel	107	10.0	25.0	mg/kg	1	125	---	85	73-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x						
Duplicate (0120816-DUP2)			Prepared: 12/22/20 12:44		Analyzed: 12/23/20 12:10							
QC Source Sample: CB-1 (A0L0698-01RE2)												
NWTPH-Dx												
Diesel	ND	49.8	99.6	mg/kg	5	---	ND	---	---	---	30%	
Oil	1830	99.6	199	mg/kg	5	---	1960	---	---	7	30%	F-03
Surr: o-Terphenyl (Surr)		Recovery: 88 %		Limits: 50-150 %		Dilution: 5x					S-05	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Blank (0120837-BLK1)			Prepared: 12/22/20 09:00 Analyzed: 12/23/20 01:24									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 94 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		94 %		50-150 %		"						
LCS (0120837-BS2)			Prepared: 12/22/20 09:00 Analyzed: 12/23/20 00:57									
NWTPH-Gx (MS)												
Gasoline Range Organics	24.4	2.50	5.00	mg/kg wet	50	25.0	---	97	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		95 %		50-150 %		"						
Duplicate (0120837-DUP1)			Prepared: 12/21/20 16:00 Analyzed: 12/23/20 02:18								V-15	
QC Source Sample: Non-SDG (A0L0795-01)												
Gasoline Range Organics	ND	3.24	6.48	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		95 %		50-150 %		"						
Duplicate (0120837-DUP2)			Prepared: 12/17/20 12:30 Analyzed: 12/23/20 03:13									
QC Source Sample: CB-7 (A0L0698-08)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	9.67	19.3	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 130 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		97 %		50-150 %		"						

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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
Blank (0120869-BLK1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 14:26							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 89 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		88 %		50-150 %		"						
LCS (0120869-BS2)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 13:59							
NWTPH-Gx (MS)												
Gasoline Range Organics	23.7	2.50	5.00	mg/kg wet	50	25.0	---	95	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		90 %		50-150 %		"						
Duplicate (0120869-DUP1)			Prepared: 12/17/20 10:10		Analyzed: 12/23/20 18:58							
QC Source Sample: CB-1 (A0L0698-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	11.2	22.3	mg/kg dry	50	---	33.2	---	---	***	30%	Q-05
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 100 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		92 %		50-150 %		"						

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Philip Nerenberg, Lab Director

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Blank (0120899-BLK1)			Prepared: 12/28/20 09:00 Analyzed: 12/28/20 12:05									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		88 %		50-150 %		"						
LCS (0120899-BS2)			Prepared: 12/28/20 09:00 Analyzed: 12/28/20 11:38									
NWTPH-Gx (MS)												
Gasoline Range Organics	22.0	2.50	5.00	mg/kg wet	50	25.0	---	88	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		88 %		50-150 %		"						
Duplicate (0120899-DUP1)			Prepared: 12/21/20 12:41 Analyzed: 12/28/20 16:11									
QC Source Sample: Non-SDG (A0L0839-05)												
Gasoline Range Organics	ND	3.39	6.79	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		87 %		50-150 %		"						
Duplicate (0120899-DUP2)			Prepared: 12/21/20 14:25 Analyzed: 12/28/20 22:31									
QC Source Sample: Non-SDG (A0L0888-02)												
Gasoline Range Organics	ND	4.64	9.29	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 86 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		83 %		50-150 %		"						

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Blank (0120732-BLK1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 00:24							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Blank (0120732-BLK1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 00:24							
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	Q-30
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	Q-30
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Blank (0120732-BLK1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 00:24							
Surr: Toluene-d8 (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		104 %		80-120 %		"						
LCS (0120732-BS1)			Prepared: 12/19/20 20:00		Analyzed: 12/19/20 23:30							
EPA 8260D												
Acetone	42.4	10.0	20.0	ug/L	1	40.0	---	106	80-120%	---	---	Q-56
Acrylonitrile	22.2	1.00	2.00	ug/L	1	20.0	---	111	80-120%	---	---	
Benzene	20.5	0.100	0.200	ug/L	1	20.0	---	103	80-120%	---	---	
Bromobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Bromochloromethane	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromodichloromethane	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	19.5	1.00	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
Bromomethane	23.5	5.00	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
2-Butanone (MEK)	43.0	5.00	10.0	ug/L	1	40.0	---	108	80-120%	---	---	
n-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
sec-Butylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
tert-Butylbenzene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Carbon disulfide	19.8	5.00	10.0	ug/L	1	20.0	---	99	80-120%	---	---	
Carbon tetrachloride	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	20.0	5.00	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroform	21.7	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloromethane	26.7	2.50	5.00	ug/L	1	20.0	---	133	80-120%	---	---	
2-Chlorotoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Chlorotoluene	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Dibromochloromethane	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.4	2.50	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,2-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethane	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
LCS (0120732-BS1)			Prepared: 12/19/20 20:00		Analyzed: 12/19/20 23:30							
1,2-Dichloroethane (EDC)	22.2	0.200	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloroethene	21.7	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
cis-1,2-Dichloroethene	20.8	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	20.7	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichloropropane	21.5	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
2,2-Dichloropropane	13.3	0.500	1.00	ug/L	1	20.0	---	67	80-120%	---	---	Q-30
1,1-Dichloropropene	19.7	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,3-Dichloropropene	17.9	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
trans-1,3-Dichloropropene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Ethylbenzene	19.7	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Hexachlorobutadiene	18.4	2.50	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Hexanone	41.1	5.00	10.0	ug/L	1	40.0	---	103	80-120%	---	---	
Isopropylbenzene	18.5	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
4-Isopropyltoluene	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	21.1	5.00	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	40.7	5.00	10.0	ug/L	1	40.0	---	102	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Naphthalene	12.7	2.00	2.00	ug/L	1	20.0	---	63	80-120%	---	---	Q-30
n-Propylbenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Styrene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	23.4	0.250	0.500	ug/L	1	20.0	---	117	80-120%	---	---	
Tetrachloroethene (PCE)	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Toluene	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,3-Trichlorobenzene	18.7	1.00	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,4-Trichlorobenzene	16.1	1.00	2.00	ug/L	1	20.0	---	80	80-120%	---	---	
1,1,1-Trichloroethane	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,2-Trichloroethane	22.2	0.250	0.500	ug/L	1	20.0	---	111	80-120%	---	---	
Trichloroethene (TCE)	18.1	0.200	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
Trichlorofluoromethane	28.6	1.00	2.00	ug/L	1	20.0	---	143	80-120%	---	---	Q-56
1,2,3-Trichloropropane	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,4-Trimethylbenzene	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,3,5-Trimethylbenzene	20.1	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
LCS (0120732-BS1)			Prepared: 12/19/20 20:00		Analyzed: 12/19/20 23:30							
Vinyl chloride	22.4	0.200	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
m,p-Xylene	39.7	0.500	1.00	ug/L	1	40.0	---	99	80-120%	---	---	
o-Xylene	18.0	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

Duplicate (0120732-DUP1)

Prepared: 12/19/20 20:00 Analyzed: 12/20/20 10:50

QC Source Sample: Non-SDG (A0L0354-10)

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Duplicate (0120732-DUP1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 10:50							
QC Source Sample: Non-SDG (A0L0354-10)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	5.95	0.200	0.400	ug/L	1	---	5.76	---	---	3	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	Q-30
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	2.00	2.00	ug/L	1	---	ND	---	---	---	30%	Q-30
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	1.78	0.200	0.400	ug/L	1	---	1.86	---	---	5	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Duplicate (0120732-DUP1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 10:50							
QC Source Sample: Non-SDG (A0L0354-10)												
Trichloroethene (TCE)	1.06	0.200	0.400	ug/L	1	---	1.11	---	---	5	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		80-120 %		"						
Matrix Spike (0120732-MS1)						Prepared: 12/19/20 20:00		Analyzed: 12/20/20 03:07				
QC Source Sample: Non-SDG (A0L0560-01)												
EPA 8260D												
Acetone	52.2	10.0	20.0	ug/L	1	40.0	ND	131	39-160%	---	---	
Acrylonitrile	23.4	1.00	2.00	ug/L	1	20.0	ND	117	63-135%	---	---	
Benzene	22.0	0.100	0.200	ug/L	1	20.0	ND	110	79-120%	---	---	
Bromobenzene	19.5	0.250	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	22.1	0.500	1.00	ug/L	1	20.0	ND	111	78-123%	---	---	
Bromodichloromethane	21.9	0.500	1.00	ug/L	1	20.0	ND	110	79-125%	---	---	
Bromoform	18.6	1.00	2.00	ug/L	1	20.0	ND	93	66-130%	---	---	
Bromomethane	24.6	5.00	5.00	ug/L	1	20.0	ND	123	53-141%	---	---	
2-Butanone (MEK)	46.6	5.00	10.0	ug/L	1	40.0	ND	116	56-143%	---	---	
n-Butylbenzene	20.3	0.500	1.00	ug/L	1	20.0	ND	101	75-128%	---	---	
sec-Butylbenzene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	77-126%	---	---	
tert-Butylbenzene	20.3	0.500	1.00	ug/L	1	20.0	ND	101	78-124%	---	---	
Carbon disulfide	22.2	5.00	10.0	ug/L	1	20.0	ND	111	64-133%	---	---	
Carbon tetrachloride	22.8	0.500	1.00	ug/L	1	20.0	ND	114	72-136%	---	---	
Chlorobenzene	20.4	0.250	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Chloroethane	20.7	5.00	5.00	ug/L	1	20.0	ND	103	60-138%	---	---	
Chloroform	23.5	0.500	1.00	ug/L	1	20.0	0.803	114	79-124%	---	---	
Chloromethane	28.8	2.50	5.00	ug/L	1	20.0	ND	144	50-139%	---	---	Q-54a

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Matrix Spike (0120732-MS1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 03:07							
QC Source Sample: Non-SDG (A0L0560-01)												
2-Chlorotoluene	19.1	0.500	1.00	ug/L	1	20.0	ND	95	79-122%	---	---	
4-Chlorotoluene	20.0	0.500	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	20.3	0.500	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.1	2.50	5.00	ug/L	1	20.0	ND	85	62-128%	---	---	
1,2-Dibromoethane (EDB)	18.7	0.500	1.00	ug/L	1	20.0	ND	93	77-121%	---	---	
Dibromomethane	22.6	0.500	1.00	ug/L	1	20.0	ND	113	79-123%	---	---	
1,2-Dichlorobenzene	19.6	0.250	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
1,3-Dichlorobenzene	19.8	0.250	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
1,4-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	ND	97	79-120%	---	---	
Dichlorodifluoromethane	24.0	0.500	1.00	ug/L	1	20.0	ND	120	32-152%	---	---	
1,1-Dichloroethane	22.7	0.200	0.400	ug/L	1	20.0	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.8	0.200	0.400	ug/L	1	20.0	ND	114	73-128%	---	---	
1,1-Dichloroethene	24.3	0.200	0.400	ug/L	1	20.0	ND	122	71-131%	---	---	
cis-1,2-Dichloroethene	22.1	0.200	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	23.1	0.200	0.400	ug/L	1	20.0	ND	115	75-124%	---	---	
1,2-Dichloropropane	22.1	0.250	0.500	ug/L	1	20.0	ND	111	78-122%	---	---	
1,3-Dichloropropane	21.0	0.500	1.00	ug/L	1	20.0	ND	105	80-120%	---	---	
2,2-Dichloropropane	12.6	0.500	1.00	ug/L	1	20.0	ND	63	60-139%	---	---	Q-30
1,1-Dichloropropene	21.9	0.500	1.00	ug/L	1	20.0	ND	110	79-125%	---	---	
cis-1,3-Dichloropropene	16.3	0.500	1.00	ug/L	1	20.0	ND	81	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	0.500	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Ethylbenzene	20.2	0.250	0.500	ug/L	1	20.0	ND	101	79-121%	---	---	
Hexachlorobutadiene	18.8	2.50	5.00	ug/L	1	20.0	ND	94	66-134%	---	---	
2-Hexanone	41.6	5.00	10.0	ug/L	1	40.0	ND	104	57-139%	---	---	
Isopropylbenzene	19.3	0.500	1.00	ug/L	1	20.0	ND	97	72-131%	---	---	
4-Isopropyltoluene	19.4	0.500	1.00	ug/L	1	20.0	ND	97	77-127%	---	---	
Methylene chloride	22.0	5.00	10.0	ug/L	1	20.0	ND	110	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	40.3	5.00	10.0	ug/L	1	40.0	ND	101	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	17.2	0.500	1.00	ug/L	1	20.0	ND	86	71-124%	---	---	
Naphthalene	12.3	2.00	2.00	ug/L	1	20.0	ND	62	61-128%	---	---	Q-30
n-Propylbenzene	20.9	0.250	0.500	ug/L	1	20.0	ND	105	76-126%	---	---	
Styrene	19.4	0.500	1.00	ug/L	1	20.0	ND	97	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.3	0.200	0.400	ug/L	1	20.0	ND	107	78-124%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120732 - EPA 5030B						Water						
Matrix Spike (0120732-MS1)			Prepared: 12/19/20 20:00		Analyzed: 12/20/20 03:07							
QC Source Sample: Non-SDG (A0L0560-01)												
1,1,2,2-Tetrachloroethane	22.6	0.250	0.500	ug/L	1	20.0	ND	113	71-121%	---	---	Q-54b
Tetrachloroethene (PCE)	19.8	0.200	0.400	ug/L	1	20.0	ND	99	74-129%	---	---	
Toluene	20.5	0.500	1.00	ug/L	1	20.0	ND	102	80-121%	---	---	
1,2,3-Trichlorobenzene	18.1	1.00	2.00	ug/L	1	20.0	ND	90	69-129%	---	---	
1,2,4-Trichlorobenzene	15.7	1.00	2.00	ug/L	1	20.0	ND	79	69-130%	---	---	
1,1,1-Trichloroethane	21.2	0.200	0.400	ug/L	1	20.0	ND	106	74-131%	---	---	
1,1,2-Trichloroethane	21.2	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Trichloroethene (TCE)	19.3	0.200	0.400	ug/L	1	20.0	ND	96	79-123%	---	---	
Trichlorofluoromethane	32.3	1.00	2.00	ug/L	1	20.0	ND	162	65-141%	---	---	
1,2,3-Trichloropropane	20.1	0.500	1.00	ug/L	1	20.0	ND	101	73-122%	---	---	
1,2,4-Trimethylbenzene	20.1	0.500	1.00	ug/L	1	20.0	ND	101	76-124%	---	---	
1,3,5-Trimethylbenzene	20.1	0.500	1.00	ug/L	1	20.0	ND	100	75-124%	---	---	
Vinyl chloride	25.5	0.200	0.400	ug/L	1	20.0	ND	127	58-137%	---	---	
m,p-Xylene	40.8	0.500	1.00	ug/L	1	40.0	ND	102	80-121%	---	---	
o-Xylene	18.6	0.250	0.500	ug/L	1	20.0	ND	93	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Blank (0120837-BLK1)			Prepared: 12/22/20 09:00		Analyzed: 12/23/20 01:24							
5035A/8260D												
Acetone	ND	0.667	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	0.0667	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Benzene	ND	0.00333	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Blank (0120837-BLK1)						Prepared: 12/22/20 09:00 Analyzed: 12/23/20 01:24						
1,2-Dichloropropane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Styrene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 106 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Blank (0120837-BLK1)			Prepared: 12/22/20 09:00		Analyzed: 12/23/20 01:24							
Surr: Toluene-d8 (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		105 %		79-120 %		"						
LCS (0120837-BS1)			Prepared: 12/22/20 09:00		Analyzed: 12/23/20 00:30							
5035A/8260D												
Acetone	1.58	1.00	1.00	mg/kg wet	50	2.00	---	79	80-120%	---	---	Q-55
Acrylonitrile	0.748	0.100	0.100	mg/kg wet	50	1.00	---	75	80-120%	---	---	Q-55
Benzene	1.10	0.00500	0.0100	mg/kg wet	50	1.00	---	110	80-120%	---	---	
Bromobenzene	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Bromochloromethane	1.02	0.0250	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
Bromodichloromethane	1.00	0.0250	0.0500	mg/kg wet	50	1.00	---	100	80-120%	---	---	
Bromoform	0.851	0.0500	0.100	mg/kg wet	50	1.00	---	85	80-120%	---	---	
Bromomethane	1.05	0.500	0.500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
2-Butanone (MEK)	1.87	0.250	0.500	mg/kg wet	50	2.00	---	94	80-120%	---	---	
n-Butylbenzene	1.10	0.0250	0.0500	mg/kg wet	50	1.00	---	110	80-120%	---	---	
sec-Butylbenzene	1.10	0.0250	0.0500	mg/kg wet	50	1.00	---	110	80-120%	---	---	
tert-Butylbenzene	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Carbon disulfide	1.04	0.250	0.500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Carbon tetrachloride	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Chlorobenzene	1.02	0.0125	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
Chloroethane	0.778	0.500	0.500	mg/kg wet	50	1.00	---	78	80-120%	---	---	Q-55
Chloroform	1.03	0.0250	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Chloromethane	0.989	0.125	0.250	mg/kg wet	50	1.00	---	99	80-120%	---	---	
2-Chlorotoluene	1.12	0.0250	0.0500	mg/kg wet	50	1.00	---	112	80-120%	---	---	
4-Chlorotoluene	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Dibromochloromethane	0.972	0.0500	0.100	mg/kg wet	50	1.00	---	97	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.892	0.125	0.250	mg/kg wet	50	1.00	---	89	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Dibromomethane	0.994	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
1,2-Dichlorobenzene	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
1,3-Dichlorobenzene	1.12	0.0125	0.0250	mg/kg wet	50	1.00	---	112	80-120%	---	---	
1,4-Dichlorobenzene	1.00	0.0125	0.0250	mg/kg wet	50	1.00	---	100	80-120%	---	---	
Dichlorodifluoromethane	0.977	0.0500	0.100	mg/kg wet	50	1.00	---	98	80-120%	---	---	
1,1-Dichloroethane	1.06	0.0125	0.0250	mg/kg wet	50	1.00	---	106	80-120%	---	---	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
LCS (0120837-BS1)			Prepared: 12/22/20 09:00		Analyzed: 12/23/20 00:30							
1,2-Dichloroethane (EDC)	0.929	0.0125	0.0250	mg/kg wet	50	1.00	---	93	80-120%	---	---	
1,1-Dichloroethene	0.980	0.0125	0.0250	mg/kg wet	50	1.00	---	98	80-120%	---	---	
cis-1,2-Dichloroethene	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	1.05	0.0125	0.0250	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,2-Dichloropropane	1.03	0.0125	0.0250	mg/kg wet	50	1.00	---	103	80-120%	---	---	
1,3-Dichloropropane	1.02	0.0250	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
2,2-Dichloropropane	1.30	0.0250	0.0500	mg/kg wet	50	1.00	---	130	80-120%	---	---	Q-56
1,1-Dichloropropene	1.10	0.0250	0.0500	mg/kg wet	50	1.00	---	110	80-120%	---	---	
cis-1,3-Dichloropropene	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
trans-1,3-Dichloropropene	0.963	0.0500	0.100	mg/kg wet	50	1.00	---	96	80-120%	---	---	
Ethylbenzene	1.06	0.0125	0.0250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Hexachlorobutadiene	1.10	0.0500	0.100	mg/kg wet	50	1.00	---	110	80-120%	---	---	
2-Hexanone	1.76	0.250	0.500	mg/kg wet	50	2.00	---	88	80-120%	---	---	
Isopropylbenzene	0.970	0.0250	0.0500	mg/kg wet	50	1.00	---	97	80-120%	---	---	
4-Isopropyltoluene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Methylene chloride	0.962	0.250	0.500	mg/kg wet	50	1.00	---	96	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	1.89	0.250	0.500	mg/kg wet	50	2.00	---	95	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Naphthalene	0.960	0.0500	0.100	mg/kg wet	50	1.00	---	96	80-120%	---	---	
n-Propylbenzene	1.09	0.0125	0.0250	mg/kg wet	50	1.00	---	109	80-120%	---	---	
Styrene	0.926	0.0250	0.0500	mg/kg wet	50	1.00	---	93	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1.01	0.0125	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.948	0.0250	0.0500	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	1.12	0.0125	0.0250	mg/kg wet	50	1.00	---	112	80-120%	---	---	
Toluene	1.00	0.0250	0.0500	mg/kg wet	50	1.00	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	1.06	0.125	0.250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	1.00	0.125	0.250	mg/kg wet	50	1.00	---	100	80-120%	---	---	
1,1,1-Trichloroethane	1.06	0.0125	0.0250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
1,1,2-Trichloroethane	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Trichloroethene (TCE)	1.15	0.0125	0.0250	mg/kg wet	50	1.00	---	115	80-120%	---	---	
Trichlorofluoromethane	0.804	0.0500	0.100	mg/kg wet	50	1.00	---	80	80-120%	---	---	
1,2,3-Trichloropropane	0.970	0.0250	0.0500	mg/kg wet	50	1.00	---	97	80-120%	---	---	
1,2,4-Trimethylbenzene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,3,5-Trimethylbenzene	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
LCS (0120837-BS1)			Prepared: 12/22/20 09:00		Analyzed: 12/23/20 00:30							
Vinyl chloride	1.02	0.0125	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
m,p-Xylene	1.93	0.0250	0.0500	mg/kg wet	50	2.00	---	97	80-120%	---	---	
o-Xylene	0.936	0.0125	0.0250	mg/kg wet	50	1.00	---	94	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		102 %		79-120 %		"						

Duplicate (0120837-DUP1)

Prepared: 12/21/20 16:00 Analyzed: 12/23/20 02:18

V-15**QC Source Sample: Non-SDG (A0L0795-01)**

Acetone	ND	1.30	1.30	mg/kg dry	50	---	ND	---	---	---	30%
Acrylonitrile	ND	0.130	0.130	mg/kg dry	50	---	ND	---	---	---	30%
Benzene	ND	0.00648	0.0130	mg/kg dry	50	---	ND	---	---	---	30%
Bromobenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%
Bromochloromethane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Bromoform	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%
Bromomethane	ND	0.648	0.648	mg/kg dry	50	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	0.324	0.648	mg/kg dry	50	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Carbon disulfide	ND	0.324	0.648	mg/kg dry	50	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Chlorobenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%
Chloroethane	ND	0.648	0.648	mg/kg dry	50	---	ND	---	---	---	30%
Chloroform	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Chloromethane	ND	0.162	0.324	mg/kg dry	50	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	0.162	0.324	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
Dibromomethane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Duplicate (0120837-DUP1)			Prepared: 12/21/20 16:00		Analyzed: 12/23/20 02:18		V-15					
QC Source Sample: Non-SDG (A0L0795-01)												
1,3-Dichlorobenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	0.324	0.648	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	0.324	0.648	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	0.324	0.648	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	0.162	0.324	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.162	0.324	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Duplicate (0120837-DUP1)			Prepared: 12/21/20 16:00		Analyzed: 12/23/20 02:18		V-15					
QC Source Sample: Non-SDG (A0L0795-01)												
Trichloroethene (TCE)	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.0648	0.130	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.0324	0.0648	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	0.0162	0.0324	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		105 %		79-120 %		"						

Duplicate (0120837-DUP2)

Prepared: 12/17/20 12:30 Analyzed: 12/23/20 03:13

QC Source Sample: CB-7 (A0L0698-08)**5035A/8260D**

Acetone	ND	3.87	3.87	mg/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	0.387	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	0.0193	0.0387	mg/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	1.93	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	0.967	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	0.967	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	1.93	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	0.483	0.967	mg/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Duplicate (0120837-DUP2)			Prepared: 12/17/20 12:30 Analyzed: 12/23/20 03:13									
QC Source Sample: CB-7 (A0L0698-08)												
2-Chlorotoluene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.483	0.967	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	0.967	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	0.967	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	0.967	1.93	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	0.197	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Duplicate (0120837-DUP2)			Prepared: 12/17/20 12:30 Analyzed: 12/23/20 03:13									
QC Source Sample: CB-7 (A0L0698-08)												
1,1,2,2-Tetrachloroethane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.0967	0.193	mg/kg dry	50	---	0.151	---	---	***	30%	Q-05
1,2,3-Trichlorobenzene	ND	0.483	0.967	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.483	0.967	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.193	0.387	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0967	0.193	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	0.199	0.0967	0.193	mg/kg dry	50	---	0.122	---	---	48	30%	Q-05
1,3,5-Trimethylbenzene	0.116	0.0967	0.193	mg/kg dry	50	---	ND	---	---		30%	Q-05, J
Vinyl chloride	ND	0.0483	0.0967	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	0.137	0.0967	0.193	mg/kg dry	50	---	ND	---	---		30%	Q-05, J
o-Xylene	0.0793	0.0483	0.0967	mg/kg dry	50	---	ND	---	---		30%	Q-05, J
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		112 %		79-120 %		"						

Matrix Spike (0120837-MS1)

Prepared: 12/18/20 19:17 Analyzed: 12/23/20 06:22

V-15**QC Source Sample: Non-SDG (A0L0742-06)****5035A/8260D**

Acetone	2.20	1.13	1.13	mg/kg dry	50	2.25	ND	98	36-164%	---	---	Q-54f
Acrylonitrile	0.947	0.113	0.113	mg/kg dry	50	1.12	ND	84	65-134%	---	---	Q-54f
Benzene	1.12	0.00563	0.0113	mg/kg dry	50	1.12	ND	100	77-121%	---	---	
Bromobenzene	1.18	0.0141	0.0281	mg/kg dry	50	1.12	ND	105	78-121%	---	---	
Bromochloromethane	1.12	0.0281	0.0563	mg/kg dry	50	1.12	ND	99	78-125%	---	---	
Bromodichloromethane	1.13	0.0281	0.0563	mg/kg dry	50	1.12	ND	101	75-127%	---	---	
Bromoform	1.05	0.0563	0.113	mg/kg dry	50	1.12	ND	93	67-132%	---	---	
Bromomethane	1.18	0.563	0.563	mg/kg dry	50	1.12	ND	105	53-143%	---	---	
2-Butanone (MEK)	1.92	0.281	0.563	mg/kg dry	50	2.25	ND	86	51-148%	---	---	
n-Butylbenzene	1.12	0.0281	0.0563	mg/kg dry	50	1.12	ND	100	70-128%	---	---	
sec-Butylbenzene	1.15	0.0281	0.0563	mg/kg dry	50	1.12	ND	102	73-126%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Matrix Spike (0120837-MS1)			Prepared: 12/18/20 19:17 Analyzed: 12/23/20 06:22				V-15					
QC Source Sample: Non-SDG (A0L0742-06)												
tert-Butylbenzene	1.17	0.0281	0.0563	mg/kg dry	50	1.12	ND	104	73-125%	---	---	Q-54j
Carbon disulfide	1.10	0.281	0.563	mg/kg dry	50	1.12	ND	98	63-132%	---	---	
Carbon tetrachloride	1.23	0.0281	0.0563	mg/kg dry	50	1.12	ND	110	70-135%	---	---	
Chlorobenzene	1.12	0.0141	0.0281	mg/kg dry	50	1.12	ND	100	79-120%	---	---	
Chloroethane	1.01	0.563	0.563	mg/kg dry	50	1.12	ND	90	59-139%	---	---	
Chloroform	1.14	0.0281	0.0563	mg/kg dry	50	1.12	ND	102	78-123%	---	---	
Chloromethane	0.987	0.141	0.281	mg/kg dry	50	1.12	ND	88	50-136%	---	---	
2-Chlorotoluene	1.17	0.0281	0.0563	mg/kg dry	50	1.12	ND	104	75-122%	---	---	
4-Chlorotoluene	1.16	0.0281	0.0563	mg/kg dry	50	1.12	ND	103	72-124%	---	---	
Dibromochloromethane	1.14	0.0563	0.113	mg/kg dry	50	1.12	ND	102	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1.01	0.141	0.281	mg/kg dry	50	1.12	ND	90	61-132%	---	---	Q-54
1,2-Dibromoethane (EDB)	1.17	0.0281	0.0563	mg/kg dry	50	1.12	ND	104	78-122%	---	---	
Dibromomethane	1.10	0.0281	0.0563	mg/kg dry	50	1.12	ND	98	78-125%	---	---	
1,2-Dichlorobenzene	1.17	0.0141	0.0281	mg/kg dry	50	1.12	ND	105	78-121%	---	---	
1,3-Dichlorobenzene	1.23	0.0141	0.0281	mg/kg dry	50	1.12	ND	109	77-121%	---	---	
1,4-Dichlorobenzene	1.12	0.0141	0.0281	mg/kg dry	50	1.12	ND	99	75-120%	---	---	
Dichlorodifluoromethane	1.09	0.0563	0.113	mg/kg dry	50	1.12	ND	97	29-149%	---	---	
1,1-Dichloroethane	1.13	0.0141	0.0281	mg/kg dry	50	1.12	ND	101	76-125%	---	---	
1,2-Dichloroethane (EDC)	1.11	0.0141	0.0281	mg/kg dry	50	1.12	ND	99	73-128%	---	---	
1,1-Dichloroethene	1.08	0.0141	0.0281	mg/kg dry	50	1.12	ND	96	70-131%	---	---	
cis-1,2-Dichloroethene	1.13	0.0141	0.0281	mg/kg dry	50	1.12	ND	101	77-123%	---	---	
trans-1,2-Dichloroethene	1.12	0.0141	0.0281	mg/kg dry	50	1.12	ND	100	74-125%	---	---	
1,2-Dichloropropane	1.06	0.0141	0.0281	mg/kg dry	50	1.12	ND	95	76-123%	---	---	
1,3-Dichloropropane	1.14	0.0281	0.0563	mg/kg dry	50	1.12	ND	101	77-121%	---	---	
2,2-Dichloropropane	1.11	0.0281	0.0563	mg/kg dry	50	1.12	ND	99	67-133%	---	---	
1,1-Dichloropropene	1.15	0.0281	0.0563	mg/kg dry	50	1.12	ND	102	76-125%	---	---	
cis-1,3-Dichloropropene	1.13	0.0281	0.0563	mg/kg dry	50	1.12	ND	100	74-126%	---	---	
trans-1,3-Dichloropropene	1.05	0.0563	0.113	mg/kg dry	50	1.12	ND	93	71-130%	---	---	
Ethylbenzene	1.18	0.0141	0.0281	mg/kg dry	50	1.12	ND	105	76-122%	---	---	
Hexachlorobutadiene	1.16	0.0563	0.113	mg/kg dry	50	1.12	ND	103	61-135%	---	---	
2-Hexanone	1.96	0.281	0.563	mg/kg dry	50	2.25	ND	87	53-145%	---	---	
Isopropylbenzene	1.09	0.0281	0.0563	mg/kg dry	50	1.12	ND	97	68-134%	---	---	
4-Isopropyltoluene	1.11	0.0281	0.0563	mg/kg dry	50	1.12	ND	99	73-127%	---	---	

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Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120837 - EPA 5035A						Soil						
Matrix Spike (0120837-MS1)			Prepared: 12/18/20 19:17 Analyzed: 12/23/20 06:22						V-15			
QC Source Sample: Non-SDG (A0L0742-06)												
Methylene chloride	1.04	0.281	0.563	mg/kg dry	50	1.12	ND	92	70-128%	---	---	
4-Methyl-2-pentanone (MiBK)	2.11	0.281	0.563	mg/kg dry	50	2.25	ND	94	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1.15	0.0281	0.0563	mg/kg dry	50	1.12	ND	102	73-125%	---	---	
Naphthalene	1.01	0.0563	0.113	mg/kg dry	50	1.12	ND	90	62-129%	---	---	
n-Propylbenzene	1.14	0.0141	0.0281	mg/kg dry	50	1.12	ND	101	73-125%	---	---	
Styrene	1.04	0.0281	0.0563	mg/kg dry	50	1.12	ND	92	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1.20	0.0141	0.0281	mg/kg dry	50	1.12	ND	107	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1.03	0.0281	0.0563	mg/kg dry	50	1.12	ND	92	70-124%	---	---	
Tetrachloroethene (PCE)	1.21	0.0141	0.0281	mg/kg dry	50	1.12	ND	108	73-128%	---	---	
Toluene	1.08	0.0281	0.0563	mg/kg dry	50	1.12	ND	96	77-121%	---	---	
1,2,3-Trichlorobenzene	1.20	0.141	0.281	mg/kg dry	50	1.12	ND	107	66-130%	---	---	
1,2,4-Trichlorobenzene	1.08	0.141	0.281	mg/kg dry	50	1.12	ND	96	67-129%	---	---	
1,1,1-Trichloroethane	1.21	0.0141	0.0281	mg/kg dry	50	1.12	ND	107	73-130%	---	---	
1,1,2-Trichloroethane	1.14	0.0141	0.0281	mg/kg dry	50	1.12	ND	101	78-121%	---	---	
Trichloroethene (TCE)	1.22	0.0141	0.0281	mg/kg dry	50	1.12	ND	108	77-123%	---	---	
Trichlorofluoromethane	1.34	0.0563	0.113	mg/kg dry	50	1.12	ND	119	62-140%	---	---	
1,2,3-Trichloropropane	1.12	0.0281	0.0563	mg/kg dry	50	1.12	ND	99	73-125%	---	---	
1,2,4-Trimethylbenzene	1.11	0.0281	0.0563	mg/kg dry	50	1.12	ND	99	75-123%	---	---	
1,3,5-Trimethylbenzene	1.17	0.0281	0.0563	mg/kg dry	50	1.12	ND	104	73-124%	---	---	
Vinyl chloride	1.05	0.0141	0.0281	mg/kg dry	50	1.12	ND	94	56-135%	---	---	
m,p-Xylene	2.17	0.0281	0.0563	mg/kg dry	50	2.25	ND	97	77-124%	---	---	
o-Xylene	1.06	0.0141	0.0281	mg/kg dry	50	1.12	ND	94	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		79-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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GeoDesign, Inc.

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
Blank (0120869-BLK1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 14:26							
5035A/8260D												
Acetone	ND	0.333	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Benzene	ND	0.00333	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
Blank (0120869-BLK1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 14:26							
1,2-Dichloropropane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Styrene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	Q-30
1,2,3-Trichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 113 %		Limits: 80-120 %		Dilution: 1x						

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Philip Nerenberg, Lab Director

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
Blank (0120869-BLK1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 14:26							
Surr: Toluene-d8 (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		106 %		79-120 %		"						
LCS (0120869-BS1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 13:32							
5035A/8260D												
Acetone	1.64	0.500	1.00	mg/kg wet	50	2.00	---	82	80-120%	---	---	Q-55
Acrylonitrile	0.841	0.0500	0.100	mg/kg wet	50	1.00	---	84	80-120%	---	---	
Benzene	1.17	0.00500	0.0100	mg/kg wet	50	1.00	---	117	80-120%	---	---	
Bromobenzene	1.12	0.0125	0.0250	mg/kg wet	50	1.00	---	112	80-120%	---	---	
Bromochloromethane	0.991	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Bromodichloromethane	1.03	0.0250	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Bromoform	0.890	0.0500	0.100	mg/kg wet	50	1.00	---	89	80-120%	---	---	
Bromomethane	1.04	0.500	0.500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
2-Butanone (MEK)	1.87	0.250	0.500	mg/kg wet	50	2.00	---	93	80-120%	---	---	
n-Butylbenzene	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
sec-Butylbenzene	1.13	0.0250	0.0500	mg/kg wet	50	1.00	---	113	80-120%	---	---	
tert-Butylbenzene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Carbon disulfide	1.15	0.250	0.500	mg/kg wet	50	1.00	---	115	80-120%	---	---	
Carbon tetrachloride	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
Chlorobenzene	1.06	0.0125	0.0250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Chloroethane	0.666	0.500	0.500	mg/kg wet	50	1.00	---	67	80-120%	---	---	
Chloroform	1.07	0.0250	0.0500	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Chloromethane	0.976	0.125	0.250	mg/kg wet	50	1.00	---	98	80-120%	---	---	
2-Chlorotoluene	1.16	0.0250	0.0500	mg/kg wet	50	1.00	---	116	80-120%	---	---	
4-Chlorotoluene	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Dibromochloromethane	0.973	0.0500	0.100	mg/kg wet	50	1.00	---	97	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.922	0.125	0.250	mg/kg wet	50	1.00	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
Dibromomethane	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
1,2-Dichlorobenzene	1.10	0.0125	0.0250	mg/kg wet	50	1.00	---	110	80-120%	---	---	
1,3-Dichlorobenzene	1.14	0.0125	0.0250	mg/kg wet	50	1.00	---	114	80-120%	---	---	
1,4-Dichlorobenzene	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Dichlorodifluoromethane	0.994	0.0500	0.100	mg/kg wet	50	1.00	---	99	80-120%	---	---	
1,1-Dichloroethane	1.09	0.0125	0.0250	mg/kg wet	50	1.00	---	109	80-120%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
LCS (0120869-BS1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 13:32							
1,2-Dichloroethane (EDC)	0.914	0.0125	0.0250	mg/kg wet	50	1.00	---	91	80-120%	---	---	
1,1-Dichloroethene	0.979	0.0125	0.0250	mg/kg wet	50	1.00	---	98	80-120%	---	---	
cis-1,2-Dichloroethene	1.06	0.0125	0.0250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	1.09	0.0125	0.0250	mg/kg wet	50	1.00	---	109	80-120%	---	---	
1,2-Dichloropropane	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
1,3-Dichloropropane	1.02	0.0250	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
2,2-Dichloropropane	1.63	0.0250	0.0500	mg/kg wet	50	1.00	---	163	80-120%	---	---	Q-56
1,1-Dichloropropene	1.15	0.0250	0.0500	mg/kg wet	50	1.00	---	115	80-120%	---	---	
cis-1,3-Dichloropropene	1.11	0.0250	0.0500	mg/kg wet	50	1.00	---	111	80-120%	---	---	
trans-1,3-Dichloropropene	0.952	0.0500	0.100	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Ethylbenzene	1.08	0.0125	0.0250	mg/kg wet	50	1.00	---	108	80-120%	---	---	
Hexachlorobutadiene	1.14	0.0500	0.100	mg/kg wet	50	1.00	---	114	80-120%	---	---	
2-Hexanone	1.64	0.250	0.500	mg/kg wet	50	2.00	---	82	80-120%	---	---	
Isopropylbenzene	0.998	0.0250	0.0500	mg/kg wet	50	1.00	---	100	80-120%	---	---	
4-Isopropyltoluene	1.08	0.0250	0.0500	mg/kg wet	50	1.00	---	108	80-120%	---	---	
Methylene chloride	1.06	0.250	0.500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	1.73	0.250	0.500	mg/kg wet	50	2.00	---	87	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.08	0.0250	0.0500	mg/kg wet	50	1.00	---	108	80-120%	---	---	
Naphthalene	0.966	0.0500	0.100	mg/kg wet	50	1.00	---	97	80-120%	---	---	
n-Propylbenzene	1.10	0.0125	0.0250	mg/kg wet	50	1.00	---	110	80-120%	---	---	
Styrene	0.957	0.0250	0.0500	mg/kg wet	50	1.00	---	96	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.963	0.0250	0.0500	mg/kg wet	50	1.00	---	96	80-120%	---	---	
Tetrachloroethene (PCE)	1.18	0.0125	0.0250	mg/kg wet	50	1.00	---	118	80-120%	---	---	
Toluene	1.03	0.0250	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	
1,2,3-Trichlorobenzene	1.12	0.125	0.250	mg/kg wet	50	1.00	---	112	80-120%	---	---	
1,2,4-Trichlorobenzene	1.04	0.125	0.250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
1,1,1-Trichloroethane	1.10	0.0125	0.0250	mg/kg wet	50	1.00	---	110	80-120%	---	---	
1,1,2-Trichloroethane	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Trichloroethene (TCE)	1.28	0.0125	0.0250	mg/kg wet	50	1.00	---	128	80-120%	---	---	Q-56
Trichlorofluoromethane	0.604	0.0500	0.100	mg/kg wet	50	1.00	---	60	80-120%	---	---	Q-30
1,2,3-Trichloropropane	0.960	0.0250	0.0500	mg/kg wet	50	1.00	---	96	80-120%	---	---	
1,2,4-Trimethylbenzene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,3,5-Trimethylbenzene	1.09	0.0250	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
LCS (0120869-BS1)			Prepared: 12/23/20 09:00		Analyzed: 12/23/20 13:32							
Vinyl chloride	1.02	0.0125	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
m,p-Xylene	1.95	0.0250	0.0500	mg/kg wet	50	2.00	---	98	80-120%	---	---	
o-Xylene	0.954	0.0125	0.0250	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 112 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		79-120 %		"						

Duplicate (0120869-DUP1)

Prepared: 12/17/20 10:10 Analyzed: 12/23/20 18:58

QC Source Sample: CB-1 (A0L0698-01)**5035A/8260D**

Acetone	ND	2.23	4.47	mg/kg dry	50	---	ND	---	---	---	30%
Acrylonitrile	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%
Benzene	ND	0.0223	0.0447	mg/kg dry	50	---	ND	---	---	---	30%
Bromobenzene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%
Bromochloromethane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Bromoform	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%
Bromomethane	ND	2.23	2.23	mg/kg dry	50	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	1.12	2.23	mg/kg dry	50	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Carbon disulfide	ND	1.12	2.23	mg/kg dry	50	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Chlorobenzene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%
Chloroethane	ND	2.23	2.23	mg/kg dry	50	---	ND	---	---	---	30%
Chloroform	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Chloromethane	ND	0.559	1.12	mg/kg dry	50	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	0.559	1.12	mg/kg dry	50	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%
Dibromomethane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
Duplicate (0120869-DUP1)			Prepared: 12/17/20 10:10		Analyzed: 12/23/20 18:58							
QC Source Sample: CB-1 (A0L0698-01)												
1,2-Dichlorobenzene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	0.0715	0.0559	0.112	mg/kg dry	50	---	ND	---	---		30%	Q-05, J
Hexachlorobutadiene	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	1.12	2.23	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.112	0.223	mg/kg dry	50	---	0.448	---	---	***	30%	Q-05
Methylene chloride	ND	1.12	2.23	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	1.12	2.23	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	0.273	0.223	0.447	mg/kg dry	50	---	0.336	---	---	21	30%	Q-05, J
n-Propylbenzene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.112	0.223	mg/kg dry	50	---	0.207	---	---	***	30%	Q-05
1,2,3-Trichlorobenzene	ND	0.559	1.12	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.559	1.12	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A						Soil						
Duplicate (0120869-DUP1)			Prepared: 12/17/20 10:10		Analyzed: 12/23/20 18:58							
QC Source Sample: CB-1 (A0L0698-01)												
1,1,2-Trichloroethane	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	Q-30
Trichloroethene (TCE)	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.223	0.447	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.112	0.223	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	0.0559	0.112	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 106 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		108 %		79-120 %		"						
Matrix Spike (0120869-MS1)						Prepared: 12/17/20 11:05 Analyzed: 12/23/20 20:47						
QC Source Sample: CB-4 DUP (A0L0698-05)												
Acetone	10.4	2.66	5.33	mg/kg dry	50	5.15	ND	202	36-164%	---	---	Q-54h
Acrylonitrile	4.90	0.266	0.533	mg/kg dry	50	2.57	ND	190	65-134%	---	---	
Benzene	5.30	0.0266	0.0533	mg/kg dry	50	2.57	ND	206	77-121%	---	---	
Bromobenzene	5.41	0.0666	0.133	mg/kg dry	50	2.57	ND	210	78-121%	---	---	
Bromochloromethane	5.17	0.133	0.266	mg/kg dry	50	2.57	ND	201	78-125%	---	---	
Bromodichloromethane	5.47	0.133	0.266	mg/kg dry	50	2.57	ND	212	75-127%	---	---	
Bromoform	5.25	0.266	0.533	mg/kg dry	50	2.57	ND	204	67-132%	---	---	
Bromomethane	5.78	2.66	2.66	mg/kg dry	50	2.57	ND	225	53-143%	---	---	
2-Butanone (MEK)	10.3	1.33	2.66	mg/kg dry	50	5.15	ND	200	51-148%	---	---	
n-Butylbenzene	5.07	0.133	0.266	mg/kg dry	50	2.57	ND	197	70-128%	---	---	
sec-Butylbenzene	5.18	0.133	0.266	mg/kg dry	50	2.57	ND	201	73-126%	---	---	
tert-Butylbenzene	5.11	0.133	0.266	mg/kg dry	50	2.57	ND	199	73-125%	---	---	
Carbon disulfide	5.45	1.33	2.66	mg/kg dry	50	2.57	ND	212	63-132%	---	---	
Carbon tetrachloride	5.93	0.133	0.266	mg/kg dry	50	2.57	ND	230	70-135%	---	---	
Chlorobenzene	5.43	0.0666	0.133	mg/kg dry	50	2.57	ND	211	79-120%	---	---	
Chloroethane	5.37	2.66	2.66	mg/kg dry	50	2.57	ND	209	59-139%	---	---	
Chloroform	5.41	0.133	0.266	mg/kg dry	50	2.57	ND	210	78-123%	---	---	
Chloromethane	4.49	0.666	1.33	mg/kg dry	50	2.57	ND	174	50-136%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A							Soil					
Matrix Spike (0120869-MS1)			Prepared: 12/17/20 11:05		Analyzed: 12/23/20 20:47							
QC Source Sample: CB-4 DUP (A0L0698-05)												
2-Chlorotoluene	5.53	0.133	0.266	mg/kg dry	50	2.57	ND	215	75-122%	---	---	
4-Chlorotoluene	5.23	0.133	0.266	mg/kg dry	50	2.57	ND	203	72-124%	---	---	
Dibromochloromethane	5.63	0.266	0.533	mg/kg dry	50	2.57	ND	219	74-126%	---	---	
1,2-Dibromo-3-chloropropane	5.21	0.666	1.33	mg/kg dry	50	2.57	ND	202	61-132%	---	---	
1,2-Dibromoethane (EDB)	5.75	0.133	0.266	mg/kg dry	50	2.57	ND	224	78-122%	---	---	
Dibromomethane	5.36	0.133	0.266	mg/kg dry	50	2.57	ND	208	78-125%	---	---	
1,2-Dichlorobenzene	5.65	0.0666	0.133	mg/kg dry	50	2.57	ND	219	78-121%	---	---	
1,3-Dichlorobenzene	5.69	0.0666	0.133	mg/kg dry	50	2.57	ND	221	77-121%	---	---	
1,4-Dichlorobenzene	5.29	0.0666	0.133	mg/kg dry	50	2.57	ND	205	75-120%	---	---	
Dichlorodifluoromethane	5.35	0.266	0.533	mg/kg dry	50	2.57	ND	208	29-149%	---	---	
1,1-Dichloroethane	5.26	0.0666	0.133	mg/kg dry	50	2.57	ND	204	76-125%	---	---	
1,2-Dichloroethane (EDC)	5.12	0.0666	0.133	mg/kg dry	50	2.57	ND	199	73-128%	---	---	
1,1-Dichloroethene	5.22	0.0666	0.133	mg/kg dry	50	2.57	ND	203	70-131%	---	---	
cis-1,2-Dichloroethene	5.20	0.0666	0.133	mg/kg dry	50	2.57	ND	202	77-123%	---	---	
trans-1,2-Dichloroethene	5.22	0.0666	0.133	mg/kg dry	50	2.57	ND	203	74-125%	---	---	
1,2-Dichloropropane	4.87	0.0666	0.133	mg/kg dry	50	2.57	ND	189	76-123%	---	---	
1,3-Dichloropropane	5.30	0.133	0.266	mg/kg dry	50	2.57	ND	206	77-121%	---	---	
2,2-Dichloropropane	7.05	0.133	0.266	mg/kg dry	50	2.57	ND	274	67-133%	---	---	Q-54d
1,1-Dichloropropene	5.54	0.133	0.266	mg/kg dry	50	2.57	ND	215	76-125%	---	---	
cis-1,3-Dichloropropene	5.62	0.133	0.266	mg/kg dry	50	2.57	ND	218	74-126%	---	---	
trans-1,3-Dichloropropene	5.36	0.266	0.533	mg/kg dry	50	2.57	ND	208	71-130%	---	---	
Ethylbenzene	5.56	0.0666	0.133	mg/kg dry	50	2.57	ND	216	76-122%	---	---	
Hexachlorobutadiene	5.69	0.266	0.533	mg/kg dry	50	2.57	ND	221	61-135%	---	---	
2-Hexanone	11.2	1.33	2.66	mg/kg dry	50	5.15	ND	218	53-145%	---	---	
Isopropylbenzene	5.13	0.133	0.266	mg/kg dry	50	2.57	ND	199	68-134%	---	---	
4-Isopropyltoluene	5.11	0.133	0.266	mg/kg dry	50	2.57	ND	199	73-127%	---	---	
Methylene chloride	5.13	1.33	2.66	mg/kg dry	50	2.57	ND	199	70-128%	---	---	
4-Methyl-2-pentanone (MiBK)	10.8	1.33	2.66	mg/kg dry	50	5.15	ND	209	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	5.46	0.133	0.266	mg/kg dry	50	2.57	ND	212	73-125%	---	---	
Naphthalene	4.92	0.266	0.533	mg/kg dry	50	2.57	ND	191	62-129%	---	---	
n-Propylbenzene	5.12	0.0666	0.133	mg/kg dry	50	2.57	ND	199	73-125%	---	---	
Styrene	5.19	0.133	0.266	mg/kg dry	50	2.57	ND	202	76-124%	---	---	
1,1,1,2-Tetrachloroethane	5.69	0.0666	0.133	mg/kg dry	50	2.57	ND	221	78-125%	---	---	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120869 - EPA 5035A								Soil				
Matrix Spike (0120869-MS1)			Prepared: 12/17/20 11:05		Analyzed: 12/23/20 20:47							
QC Source Sample: CB-4 DUP (A0L0698-05)												
1,1,2,2-Tetrachloroethane	5.04	0.133	0.266	mg/kg dry	50	2.57	ND	196	70-124%	---	---	
Tetrachloroethene (PCE)	5.98	0.0666	0.133	mg/kg dry	50	2.57	ND	232	73-128%	---	---	
Toluene	5.23	0.133	0.266	mg/kg dry	50	2.57	ND	203	77-121%	---	---	
1,2,3-Trichlorobenzene	5.65	0.666	1.33	mg/kg dry	50	2.57	ND	219	66-130%	---	---	
1,2,4-Trichlorobenzene	5.21	0.666	1.33	mg/kg dry	50	2.57	ND	203	67-129%	---	---	
1,1,1-Trichloroethane	5.82	0.0666	0.133	mg/kg dry	50	2.57	ND	226	73-130%	---	---	
1,1,2-Trichloroethane	5.58	0.0666	0.133	mg/kg dry	50	2.57	ND	217	78-121%	---	---	
Trichloroethene (TCE)	5.76	0.0666	0.133	mg/kg dry	50	2.57	ND	224	77-123%	---	---	Q-54e
Trichlorofluoromethane	11.0	0.266	0.533	mg/kg dry	50	2.57	ND	426	62-140%	---	---	Q-30
1,2,3-Trichloropropane	5.45	0.133	0.266	mg/kg dry	50	2.57	ND	212	73-125%	---	---	
1,2,4-Trimethylbenzene	5.09	0.133	0.266	mg/kg dry	50	2.57	ND	198	75-123%	---	---	
1,3,5-Trimethylbenzene	5.27	0.133	0.266	mg/kg dry	50	2.57	ND	205	73-124%	---	---	
Vinyl chloride	5.01	0.0666	0.133	mg/kg dry	50	2.57	ND	195	56-135%	---	---	
m,p-Xylene	10.4	0.133	0.266	mg/kg dry	50	5.15	ND	202	77-124%	---	---	
o-Xylene	5.08	0.0666	0.133	mg/kg dry	50	2.57	ND	197	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		79-120 %		"						

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Blank (0120899-BLK1)			Prepared: 12/28/20 09:00		Analyzed: 12/28/20 12:05							
5035A/8260D												
Acetone	ND	0.333	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Benzene	ND	0.00333	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	0.167	0.167	mg/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Blank (0120899-BLK1)			Prepared: 12/28/20 09:00		Analyzed: 12/28/20 12:05							
1,2-Dichloropropane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	0.333	0.333	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	0.167	0.333	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	0.0333	0.0667	mg/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Styrene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0833	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	0.0667	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	0.0167	0.0333	mg/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	0.00833	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Blank (0120899-BLK1)			Prepared: 12/28/20 09:00		Analyzed: 12/28/20 12:05							
Surr: Toluene-d8 (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		107 %		79-120 %		"						
LCS (0120899-BS1)			Prepared: 12/28/20 09:00		Analyzed: 12/28/20 11:11							
5035A/8260D												
Acetone	1.66	0.500	1.00	mg/kg wet	50	2.00	---	83	80-120%	---	---	
Acrylonitrile	0.872	0.0500	0.100	mg/kg wet	50	1.00	---	87	80-120%	---	---	
Benzene	1.03	0.00500	0.0100	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Bromobenzene	1.07	0.0125	0.0250	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Bromochloromethane	0.894	0.0250	0.0500	mg/kg wet	50	1.00	---	89	80-120%	---	---	
Bromodichloromethane	0.996	0.0250	0.0500	mg/kg wet	50	1.00	---	100	80-120%	---	---	
Bromoform	0.952	0.0500	0.100	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Bromomethane	0.920	0.500	0.500	mg/kg wet	50	1.00	---	92	80-120%	---	---	
2-Butanone (MEK)	1.64	0.250	0.500	mg/kg wet	50	2.00	---	82	80-120%	---	---	
n-Butylbenzene	1.03	0.0250	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	
sec-Butylbenzene	1.04	0.0250	0.0500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
tert-Butylbenzene	0.990	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Carbon disulfide	0.994	0.250	0.500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Carbon tetrachloride	1.07	0.0250	0.0500	mg/kg wet	50	1.00	---	107	80-120%	---	---	
Chlorobenzene	0.990	0.0125	0.0250	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Chloroethane	0.654	0.500	0.500	mg/kg wet	50	1.00	---	65	80-120%	---	---	Q-55
Chloroform	0.990	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Chloromethane	0.782	0.250	0.250	mg/kg wet	50	1.00	---	78	80-120%	---	---	Q-55
2-Chlorotoluene	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
4-Chlorotoluene	0.994	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Dibromochloromethane	1.01	0.0500	0.100	mg/kg wet	50	1.00	---	101	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.939	0.125	0.250	mg/kg wet	50	1.00	---	94	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Dibromomethane	0.994	0.0250	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
1,2-Dichlorobenzene	1.06	0.0125	0.0250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
1,3-Dichlorobenzene	1.09	0.0125	0.0250	mg/kg wet	50	1.00	---	109	80-120%	---	---	
1,4-Dichlorobenzene	1.00	0.0125	0.0250	mg/kg wet	50	1.00	---	100	80-120%	---	---	
Dichlorodifluoromethane	0.807	0.0500	0.100	mg/kg wet	50	1.00	---	81	80-120%	---	---	
1,1-Dichloroethane	0.960	0.0125	0.0250	mg/kg wet	50	1.00	---	96	80-120%	---	---	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
LCS (0120899-BS1)			Prepared: 12/28/20 09:00		Analyzed: 12/28/20 11:11							
1,2-Dichloroethane (EDC)	0.907	0.0125	0.0250	mg/kg wet	50	1.00	---	91	80-120%	---	---	
1,1-Dichloroethene	0.882	0.0125	0.0250	mg/kg wet	50	1.00	---	88	80-120%	---	---	
cis-1,2-Dichloroethene	0.972	0.0125	0.0250	mg/kg wet	50	1.00	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	0.982	0.0125	0.0250	mg/kg wet	50	1.00	---	98	80-120%	---	---	
1,2-Dichloropropane	0.948	0.0125	0.0250	mg/kg wet	50	1.00	---	95	80-120%	---	---	
1,3-Dichloropropane	0.960	0.0250	0.0500	mg/kg wet	50	1.00	---	96	80-120%	---	---	
2,2-Dichloropropane	1.56	0.0250	0.0500	mg/kg wet	50	1.00	---	156	80-120%	---	---	Q-56
1,1-Dichloropropene	1.06	0.0250	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
cis-1,3-Dichloropropene	1.05	0.0250	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
trans-1,3-Dichloropropene	0.965	0.0500	0.100	mg/kg wet	50	1.00	---	96	80-120%	---	---	
Ethylbenzene	1.01	0.0125	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Hexachlorobutadiene	1.16	0.0500	0.100	mg/kg wet	50	1.00	---	116	80-120%	---	---	
2-Hexanone	1.53	0.500	0.500	mg/kg wet	50	2.00	---	77	80-120%	---	---	Q-55
Isopropylbenzene	0.945	0.0250	0.0500	mg/kg wet	50	1.00	---	94	80-120%	---	---	
4-Isopropyltoluene	1.01	0.0250	0.0500	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Methylene chloride	0.920	0.250	0.500	mg/kg wet	50	1.00	---	92	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	1.64	0.250	0.500	mg/kg wet	50	2.00	---	82	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.03	0.0250	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Naphthalene	0.961	0.0500	0.100	mg/kg wet	50	1.00	---	96	80-120%	---	---	
n-Propylbenzene	1.01	0.0125	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Styrene	0.898	0.0250	0.0500	mg/kg wet	50	1.00	---	90	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1.02	0.0125	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.908	0.0250	0.0500	mg/kg wet	50	1.00	---	91	80-120%	---	---	
Tetrachloroethene (PCE)	1.14	0.0125	0.0250	mg/kg wet	50	1.00	---	114	80-120%	---	---	
Toluene	0.957	0.0250	0.0500	mg/kg wet	50	1.00	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	1.12	0.125	0.250	mg/kg wet	50	1.00	---	112	80-120%	---	---	
1,2,4-Trichlorobenzene	1.06	0.125	0.250	mg/kg wet	50	1.00	---	106	80-120%	---	---	
1,1,1-Trichloroethane	1.05	0.0125	0.0250	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,1,2-Trichloroethane	1.04	0.0125	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Trichloroethene (TCE)	1.13	0.0125	0.0250	mg/kg wet	50	1.00	---	113	80-120%	---	---	
Trichlorofluoromethane	0.704	0.100	0.100	mg/kg wet	50	1.00	---	70	80-120%	---	---	Q-55
1,2,3-Trichloropropane	0.938	0.0250	0.0500	mg/kg wet	50	1.00	---	94	80-120%	---	---	
1,2,4-Trimethylbenzene	0.984	0.0250	0.0500	mg/kg wet	50	1.00	---	98	80-120%	---	---	
1,3,5-Trimethylbenzene	1.03	0.0250	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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**Apex Laboratories, LLC**

6700 S.W. Sandburg Street

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
LCS (0120899-BS1)			Prepared: 12/28/20 09:00		Analyzed: 12/28/20 11:11							
Vinyl chloride	0.832	0.0125	0.0250	mg/kg wet	50	1.00	---	83	80-120%	---	---	
m,p-Xylene	1.85	0.0250	0.0500	mg/kg wet	50	2.00	---	92	80-120%	---	---	
o-Xylene	0.902	0.0125	0.0250	mg/kg wet	50	1.00	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		103 %		79-120 %		"						
Duplicate (0120899-DUP1)			Prepared: 12/21/20 12:41		Analyzed: 12/28/20 16:11							
QC Source Sample: Non-SDG (A0L0839-05)												
Acetone	ND	0.679	1.36	mg/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	0.00679	0.0136	mg/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	0.679	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	0.339	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	0.339	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	0.679	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	0.339	0.339	mg/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.170	0.339	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Duplicate (0120899-DUP1)			Prepared: 12/21/20 12:41		Analyzed: 12/28/20 16:11							
QC Source Sample: Non-SDG (A0L0839-05)												
1,3-Dichlorobenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	0.679	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	0.339	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	0.339	0.679	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	0.0679	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	0.170	0.339	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.170	0.339	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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9450 SW Commerce Circle
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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Duplicate (0120899-DUP1)			Prepared: 12/21/20 12:41		Analyzed: 12/28/20 16:11							
QC Source Sample: Non-SDG (A0L0839-05)												
Trichloroethene (TCE)	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.136	0.136	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.0339	0.0679	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	0.0170	0.0339	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		106 %		79-120 %		"						

Duplicate (0120899-DUP2) Prepared: 12/21/20 14:25 Analyzed: 12/28/20 22:31

QC Source Sample: Non-SDG (A0L0888-02)												
Acetone	ND	0.929	1.86	mg/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	0.00929	0.0186	mg/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	0.929	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	0.464	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	0.464	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	0.929	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	0.464	0.464	mg/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Duplicate (0120899-DUP2)			Prepared: 12/21/20 14:25		Analyzed: 12/28/20 22:31							
QC Source Sample: Non-SDG (A0L0888-02)												
4-Chlorotoluene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.232	0.464	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	0.929	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	0.464	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	0.464	0.929	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	0.0929	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Duplicate (0120899-DUP2)			Prepared: 12/21/20 14:25 Analyzed: 12/28/20 22:31									
QC Source Sample: Non-SDG (A0L0888-02)												
Tetrachloroethene (PCE)	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	0.232	0.464	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	0.232	0.464	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	0.186	0.186	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.0464	0.0929	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	0.0232	0.0464	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 119 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		107 %		79-120 %		"						

Matrix Spike (0120899-MS1)

Prepared: 12/22/20 09:07 Analyzed: 12/28/20 17:32

QC Source Sample: Non-SDG (A0L0839-08)**5035A/8260D**

Acetone	2.05	0.728	1.46	mg/kg dry	50	2.92	ND	70	36-164%	---	---	
Acrylonitrile	0.908	0.0728	0.146	mg/kg dry	50	1.46	ND	62	65-134%	---	---	Q-01
Benzene	1.41	0.00728	0.0146	mg/kg dry	50	1.46	ND	97	77-121%	---	---	
Bromobenzene	1.50	0.0182	0.0364	mg/kg dry	50	1.46	ND	103	78-121%	---	---	
Bromochloromethane	1.27	0.0364	0.0728	mg/kg dry	50	1.46	ND	87	78-125%	---	---	
Bromodichloromethane	1.41	0.0364	0.0728	mg/kg dry	50	1.46	ND	97	75-127%	---	---	
Bromoform	1.39	0.0728	0.146	mg/kg dry	50	1.46	ND	95	67-132%	---	---	
Bromomethane	1.21	0.728	0.728	mg/kg dry	50	1.46	ND	83	53-143%	---	---	
2-Butanone (MEK)	1.73	0.364	0.728	mg/kg dry	50	2.92	ND	59	51-148%	---	---	
n-Butylbenzene	1.37	0.0364	0.0728	mg/kg dry	50	1.46	ND	94	70-128%	---	---	
sec-Butylbenzene	1.43	0.0364	0.0728	mg/kg dry	50	1.46	ND	98	73-126%	---	---	
tert-Butylbenzene	1.40	0.0364	0.0728	mg/kg dry	50	1.46	ND	96	73-125%	---	---	

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Matrix Spike (0120899-MS1)			Prepared: 12/22/20 09:07		Analyzed: 12/28/20 17:32							
QC Source Sample: Non-SDG (A0L0839-08)												
Carbon disulfide	1.29	0.364	0.728	mg/kg dry	50	1.46	ND	88	63-132%	---	---	
Carbon tetrachloride	1.52	0.0364	0.0728	mg/kg dry	50	1.46	ND	104	70-135%	---	---	
Chlorobenzene	1.44	0.0182	0.0364	mg/kg dry	50	1.46	ND	98	79-120%	---	---	
Chloroethane	1.15	0.728	0.728	mg/kg dry	50	1.46	ND	79	59-139%	---	---	Q-54i
Chloroform	1.41	0.0364	0.0728	mg/kg dry	50	1.46	ND	97	78-123%	---	---	
Chloromethane	1.08	0.364	0.364	mg/kg dry	50	1.46	ND	74	50-136%	---	---	Q-54j
2-Chlorotoluene	1.49	0.0364	0.0728	mg/kg dry	50	1.46	ND	102	75-122%	---	---	
4-Chlorotoluene	1.41	0.0364	0.0728	mg/kg dry	50	1.46	ND	97	72-124%	---	---	
Dibromochloromethane	1.46	0.0728	0.146	mg/kg dry	50	1.46	ND	100	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1.39	0.182	0.364	mg/kg dry	50	1.46	ND	95	61-132%	---	---	
1,2-Dibromoethane (EDB)	1.51	0.0364	0.0728	mg/kg dry	50	1.46	ND	103	78-122%	---	---	
Dibromomethane	1.35	0.0364	0.0728	mg/kg dry	50	1.46	ND	92	78-125%	---	---	
1,2-Dichlorobenzene	1.53	0.0182	0.0364	mg/kg dry	50	1.46	ND	105	78-121%	---	---	
1,3-Dichlorobenzene	1.55	0.0182	0.0364	mg/kg dry	50	1.46	ND	106	77-121%	---	---	
1,4-Dichlorobenzene	1.45	0.0182	0.0364	mg/kg dry	50	1.46	ND	99	75-120%	---	---	
Dichlorodifluoromethane	0.871	0.0728	0.146	mg/kg dry	50	1.46	ND	60	29-149%	---	---	
1,1-Dichloroethane	1.36	0.0182	0.0364	mg/kg dry	50	1.46	ND	93	76-125%	---	---	
1,2-Dichloroethane (EDC)	1.34	0.0182	0.0364	mg/kg dry	50	1.46	ND	92	73-128%	---	---	
1,1-Dichloroethene	1.26	0.0182	0.0364	mg/kg dry	50	1.46	ND	87	70-131%	---	---	
cis-1,2-Dichloroethene	1.36	0.0182	0.0364	mg/kg dry	50	1.46	ND	94	77-123%	---	---	
trans-1,2-Dichloroethene	1.37	0.0182	0.0364	mg/kg dry	50	1.46	ND	94	74-125%	---	---	
1,2-Dichloropropane	1.30	0.0182	0.0364	mg/kg dry	50	1.46	ND	89	76-123%	---	---	
1,3-Dichloropropane	1.39	0.0364	0.0728	mg/kg dry	50	1.46	ND	95	77-121%	---	---	
2,2-Dichloropropane	1.80	0.0364	0.0728	mg/kg dry	50	1.46	ND	124	67-133%	---	---	Q-54c
1,1-Dichloropropene	1.39	0.0364	0.0728	mg/kg dry	50	1.46	ND	95	76-125%	---	---	
cis-1,3-Dichloropropene	1.48	0.0364	0.0728	mg/kg dry	50	1.46	ND	101	74-126%	---	---	
trans-1,3-Dichloropropene	1.37	0.0728	0.146	mg/kg dry	50	1.46	ND	94	71-130%	---	---	
Ethylbenzene	1.46	0.0182	0.0364	mg/kg dry	50	1.46	ND	100	76-122%	---	---	
Hexachlorobutadiene	1.49	0.0728	0.146	mg/kg dry	50	1.46	ND	102	61-135%	---	---	
2-Hexanone	2.45	0.728	0.728	mg/kg dry	50	2.92	ND	84	53-145%	---	---	Q-54k
Isopropylbenzene	1.36	0.0364	0.0728	mg/kg dry	50	1.46	ND	93	68-134%	---	---	
4-Isopropyltoluene	1.36	0.0364	0.0728	mg/kg dry	50	1.46	ND	93	73-127%	---	---	
Methylene chloride	1.28	0.364	0.728	mg/kg dry	50	1.46	ND	88	70-128%	---	---	

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Philip Nerenberg, Lab Director

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS**Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120899 - EPA 5035A						Soil						
Matrix Spike (0120899-MS1)			Prepared: 12/22/20 09:07 Analyzed: 12/28/20 17:32									
QC Source Sample: Non-SDG (A0L0839-08)												
4-Methyl-2-pentanone (MiBK)	2.56	0.364	0.728	mg/kg dry	50	2.92	ND	88	65-135%	---	---	Q-54g
Methyl tert-butyl ether (MTBE)	1.39	0.0364	0.0728	mg/kg dry	50	1.46	ND	95	73-125%	---	---	
Naphthalene	1.31	0.0728	0.146	mg/kg dry	50	1.46	ND	90	62-129%	---	---	
n-Propylbenzene	1.39	0.0182	0.0364	mg/kg dry	50	1.46	ND	95	73-125%	---	---	
Styrene	1.37	0.0364	0.0728	mg/kg dry	50	1.46	ND	94	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1.51	0.0182	0.0364	mg/kg dry	50	1.46	ND	104	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1.28	0.0364	0.0728	mg/kg dry	50	1.46	ND	88	70-124%	---	---	
Tetrachloroethene (PCE)	1.62	0.0182	0.0364	mg/kg dry	50	1.46	ND	111	73-128%	---	---	
Toluene	1.36	0.0364	0.0728	mg/kg dry	50	1.46	ND	93	77-121%	---	---	
1,2,3-Trichlorobenzene	1.53	0.182	0.364	mg/kg dry	50	1.46	ND	105	66-130%	---	---	
1,2,4-Trichlorobenzene	1.42	0.182	0.364	mg/kg dry	50	1.46	ND	98	67-129%	---	---	
1,1,1-Trichloroethane	1.50	0.0182	0.0364	mg/kg dry	50	1.46	ND	103	73-130%	---	---	
1,1,2-Trichloroethane	1.46	0.0182	0.0364	mg/kg dry	50	1.46	ND	100	78-121%	---	---	
Trichloroethene (TCE)	1.55	0.0182	0.0364	mg/kg dry	50	1.46	ND	106	77-123%	---	---	
Trichlorofluoromethane	1.64	0.146	0.146	mg/kg dry	50	1.46	ND	113	62-140%	---	---	
1,2,3-Trichloropropane	1.39	0.0364	0.0728	mg/kg dry	50	1.46	ND	95	73-125%	---	---	
1,2,4-Trimethylbenzene	1.39	0.0364	0.0728	mg/kg dry	50	1.46	ND	96	75-123%	---	---	
1,3,5-Trimethylbenzene	1.43	0.0364	0.0728	mg/kg dry	50	1.46	ND	98	73-124%	---	---	
Vinyl chloride	1.08	0.0182	0.0364	mg/kg dry	50	1.46	ND	74	56-135%	---	---	
m,p-Xylene	2.72	0.0364	0.0728	mg/kg dry	50	2.92	ND	93	77-124%	---	---	
o-Xylene	1.32	0.0182	0.0364	mg/kg dry	50	1.46	ND	91	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		79-120 %		"						

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Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Polychlorinated Biphenyls by EPA 8082A**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0121020 - EPA 3546						Solid						
Blank (0121020-BLK1)			Prepared: 12/31/20 06:56 Analyzed: 12/31/20 16:22									C-07
EPA 8082A												
Aroclor 1016	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.00667	0.0133	mg/kg	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 104 %		Limits: 60-125 %		Dilution: 1x						
LCS (0121020-BS1)			Prepared: 12/31/20 06:56 Analyzed: 12/31/20 16:39									C-07
EPA 8082A												
Aroclor 1016	1.10	0.0100	0.0200	mg/kg	1	1.25	---	88	47-134%	---	---	
Aroclor 1260	1.37	0.0100	0.0200	mg/kg	1	1.25	---	110	53-140%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 109 %		Limits: 60-125 %		Dilution: 1x						
Duplicate (0121020-DUP2)			Prepared: 12/31/20 06:56 Analyzed: 01/04/21 08:54									C-07
QC Source Sample: CB-1 (A0L0698-01RE1)												
EPA 8082A												
Aroclor 1016	ND	0.00935	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	0.00935	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Aroclor 1232	ND	0.0187	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Aroclor 1242	ND	0.00935	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Aroclor 1248	ND	0.00935	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Aroclor 1254	ND	0.00935	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Aroclor 1260	ND	0.00935	0.0187	mg/kg	1	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 79 %		Limits: 60-125 %		Dilution: 1x						
Matrix Spike (0121020-MS2)			Prepared: 12/31/20 06:56 Analyzed: 01/04/21 10:05									C-07
QC Source Sample: CB-7 (A0L0698-08RE1)												
EPA 8082A												
Aroclor 1016	0.915	0.00935	0.0187	mg/kg	1	1.17	ND	78	47-134%	---	---	
Aroclor 1260	1.15	0.00935	0.0187	mg/kg	1	1.17	0.0502	94	53-140%	---	---	

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0121020 - EPA 3546							Solid					
Matrix Spike (0121020-MS2)			Prepared: 12/31/20 06:56 Analyzed: 01/04/21 10:05					C-07				
<u>QC Source Sample: CB-7 (A0L0698-08RE1)</u>												
Surr: Decachlorobiphenyl (Surr)				Recovery: 96 %		Limits: 60-125 %		Dilution: 1x				

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0121015 - EPA 3546						Solid						
Blank (0121015-BLK1)			Prepared: 12/30/20 11:45		Analyzed: 12/31/20 13:20						C-05	
EPA 8081B												
Aldrin	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
alpha-BHC	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
beta-BHC	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
delta-BHC	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
cis-Chlordane	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
trans-Chlordane	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
4,4'-DDD	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
4,4'-DDE	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
4,4'-DDT	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Dieldrin	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Endosulfan I	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Endosulfan II	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Endrin	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Endrin ketone	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Heptachlor	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.00333	0.00667	mg/kg	1	---	---	---	---	---	---	
Methoxychlor	ND	0.0100	0.0200	mg/kg	1	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.100	0.200	mg/kg	1	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.100	0.200	mg/kg	1	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)		Recovery: 60 %		Limits: 42-129 %		Dilution: 1x						
Decachlorobiphenyl (Surr)		90 %		55-130 %		"						

LCS (0121015-BS1)

Prepared: 12/30/20 11:45 Analyzed: 12/31/20 13:38

C-05

EPA 8081B												
Aldrin	0.159	0.00500	0.0100	mg/kg	1	0.250	---	63	45-136%	---	---	
alpha-BHC	0.207	0.00500	0.0100	mg/kg	1	0.250	---	83	45-137%	---	---	
beta-BHC	0.205	0.00500	0.0100	mg/kg	1	0.250	---	82	50-136%	---	---	
delta-BHC	0.232	0.00500	0.0100	mg/kg	1	0.250	---	93	47-139%	---	---	
gamma-BHC (Lindane)	0.208	0.00500	0.0100	mg/kg	1	0.250	---	83	49-135%	---	---	
cis-Chlordane	0.218	0.00500	0.0100	mg/kg	1	0.250	---	87	54-133%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0121015 - EPA 3546						Solid						
LCS (0121015-BS1)						Prepared: 12/30/20 11:45 Analyzed: 12/31/20 13:38						C-05
trans-Chlordane	0.213	0.00500	0.0100	mg/kg	1	0.250	---	85	53-135%	---	---	
4,4'-DDD	0.268	0.00500	0.0100	mg/kg	1	0.250	---	107	56-139%	---	---	
4,4'-DDE	0.246	0.00500	0.0100	mg/kg	1	0.250	---	98	56-134%	---	---	
4,4'-DDT	0.305	0.00500	0.0100	mg/kg	1	0.250	---	122	50-141%	---	---	
Dieldrin	0.258	0.00500	0.0100	mg/kg	1	0.250	---	103	56-136%	---	---	
Endosulfan I	0.239	0.00500	0.0100	mg/kg	1	0.250	---	96	53-132%	---	---	
Endosulfan II	0.272	0.00500	0.0100	mg/kg	1	0.250	---	109	53-134%	---	---	
Endosulfan sulfate	0.280	0.00500	0.0100	mg/kg	1	0.250	---	112	55-136%	---	---	
Endrin	0.278	0.00500	0.0100	mg/kg	1	0.250	---	111	57-140%	---	---	
Endrin Aldehyde	0.220	0.00500	0.0100	mg/kg	1	0.250	---	88	35-137%	---	---	
Endrin ketone	0.293	0.00500	0.0100	mg/kg	1	0.250	---	117	55-136%	---	---	
Heptachlor	0.208	0.00500	0.0100	mg/kg	1	0.250	---	83	47-136%	---	---	
Heptachlor epoxide	0.215	0.00500	0.0100	mg/kg	1	0.250	---	86	52-136%	---	---	
Methoxychlor	0.316	0.0150	0.0300	mg/kg	1	0.250	---	127	52-143%	---	---	
<i>Surr: 2,4,5,6-TCMX (Surr) Recovery: 74 % Limits: 42-129 % Dilution: 1x</i>												
<i>Decachlorobiphenyl (Surr) 96 % 55-130 % "</i>												

Duplicate (0121015-DUP1)				Prepared: 12/30/20 11:45 Analyzed: 12/31/20 14:29								C-05, R-04
QC Source Sample: CB-1 (A0L0698-01RE1)												
EPA 8081B												
Aldrin	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
alpha-BHC	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
beta-BHC	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
delta-BHC	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
gamma-BHC (Lindane)	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
cis-Chlordane	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
trans-Chlordane	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
4,4'-DDD	ND	0.0591	0.0591	mg/kg	2	---	ND	---	---	---	30%	R-02
4,4'-DDE	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
4,4'-DDT	ND	0.160	0.160	mg/kg	2	---	ND	---	---	---	30%	R-02
Dieldrin	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
Endosulfan I	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
Endosulfan II	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
Endosulfan sulfate	ND	0.0338	0.0338	mg/kg	2	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street
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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0121015 - EPA 3546						Solid						
Duplicate (0121015-DUP1)			Prepared: 12/30/20 11:45		Analyzed: 12/31/20 14:29					C-05, R-04		
QC Source Sample: CB-1 (A0L0698-01RE1)												
Endrin	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	R-02
Endrin Aldehyde	ND	0.0354	0.0354	mg/kg	2	---	ND	---	---	---	30%	
Endrin ketone	ND	0.0338	0.0338	mg/kg	2	---	ND	---	---	---	30%	
Heptachlor	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
Heptachlor epoxide	ND	0.0169	0.0338	mg/kg	2	---	ND	---	---	---	30%	
Methoxychlor	ND	0.101	0.101	mg/kg	2	---	ND	---	---	---	30%	
Chlordane (Technical)	ND	0.506	1.01	mg/kg	2	---	ND	---	---	---	30%	
Toxaphene (Total)	ND	0.506	1.01	mg/kg	2	---	ND	---	---	---	30%	
Surr: 2,4,5,6-TCMX (Surr)		Recovery: 77 %		Limits: 42-129 %		Dilution: 2x						
Decachlorobiphenyl (Surr)		143 %		55-130 %		"		S-03				

Matrix Spike (0121015-MS1)				Prepared: 12/30/20 11:45 Analyzed: 01/04/21 13:54								C-05	
QC Source Sample: CB-7 (A0L0698-08RE1)													
EPA 8081B													
Aldrin	0.151	0.00420	0.00840	mg/kg	1	0.210	ND	72	45-136%	---	---	R-02	
alpha-BHC	0.186	0.00420	0.00840	mg/kg	1	0.210	ND	89	45-137%	---	---		
beta-BHC	0.213	0.00840	0.00840	mg/kg	1	0.210	ND	101	50-136%	---	---		
delta-BHC	0.218	0.00420	0.00840	mg/kg	1	0.210	ND	104	47-139%	---	---		
gamma-BHC (Lindane)	0.190	0.00420	0.00840	mg/kg	1	0.210	ND	90	49-135%	---	---		
cis-Chlordane	0.188	0.00420	0.00840	mg/kg	1	0.210	ND	90	54-133%	---	---		
trans-Chlordane	0.185	0.0126	0.0126	mg/kg	1	0.210	ND	82	53-135%	---	---		
4,4'-DDD	0.188	0.00420	0.00840	mg/kg	1	0.210	ND	89	56-139%	---	---		
4,4'-DDE	0.221	0.00420	0.00840	mg/kg	1	0.210	ND	105	56-134%	---	---		
4,4'-DDT	0.227	0.00840	0.00840	mg/kg	1	0.210	ND	108	50-141%	---	---		
Dieldrin	0.193	0.00420	0.00840	mg/kg	1	0.210	ND	92	56-136%	---	---		
Endosulfan I	0.193	0.00420	0.00840	mg/kg	1	0.210	ND	92	53-132%	---	---		
Endosulfan II	0.185	0.00420	0.00840	mg/kg	1	0.210	ND	88	53-134%	---	---		
Endosulfan sulfate	0.226	0.00420	0.00840	mg/kg	1	0.210	ND	108	55-136%	---	---		
Endrin	0.194	0.00420	0.00840	mg/kg	1	0.210	ND	93	57-140%	---	---		
Endrin Aldehyde	0.160	0.00420	0.00840	mg/kg	1	0.210	ND	76	35-137%	---	---		
Endrin ketone	0.205	0.00420	0.00840	mg/kg	1	0.210	ND	97	55-136%	---	---		
Heptachlor	0.196	0.00420	0.00840	mg/kg	1	0.210	ND	93	47-136%	---	---		
Heptachlor epoxide	0.187	0.00420	0.00840	mg/kg	1	0.210	ND	89	52-136%	---	---		

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Philip Nerenberg, Lab Director

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9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Organochlorine Pesticides by EPA 8081B**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0121015 - EPA 3546						Solid						
Matrix Spike (0121015-MS1)			Prepared: 12/30/20 11:45 Analyzed: 01/04/21 13:54									C-05
QC Source Sample: CB-7 (A0L0698-08RE1)												
Methoxychlor	0.265	0.0126	0.0252	mg/kg	1	0.210	ND	126	52-143%	---	---	
Surr: 2,4,5,6-TCMX (Surr)		Recovery: 82 %		Limits: 42-129 %		Dilution: 1x						
Decachlorobiphenyl (Surr)		85 %		55-130 %		"						

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120994 - EPA 3546						Solid						
Blank (0120994-BLK1)			Prepared: 12/30/20 11:44 Analyzed: 12/30/20 16:41									
EPA 8270E												
Acenaphthene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Anthracene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0100	0.0200	mg/kg	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0100	0.0200	mg/kg	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0100	0.0200	mg/kg	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Chrysene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Fluorene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0134	0.0266	mg/kg	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0134	0.0266	mg/kg	1	---	---	---	---	---	---	
Naphthalene	ND	0.0134	0.0266	mg/kg	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Pyrene	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Carbazole	ND	0.0100	0.0200	mg/kg	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00665	0.0134	mg/kg	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.100	0.200	mg/kg	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.0665	0.134	mg/kg	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.0665	0.134	mg/kg	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.0665	0.134	mg/kg	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.0665	0.134	mg/kg	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.0665	0.134	mg/kg	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 88 %		Limits: 37-122 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		76 %		44-120 %		"						
Phenol-d6 (Surr)		88 %		33-122 %		"						
p-Terphenyl-d14 (Surr)		92 %		54-127 %		"						
2-Fluorophenol (Surr)		77 %		35-120 %		"						
2,4,6-Tribromophenol (Surr)		78 %		39-132 %		"						

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Philip Nerenberg, Lab Director

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120994 - EPA 3546						Solid						
LCS (0120994-BS1)			Prepared: 12/30/20 11:44		Analyzed: 12/30/20 17:18		Q-18					
EPA 8270E												
Acenaphthene	3.69	0.0200	0.0401	mg/kg	2	4.00	---	92	40-123%	---	---	
Acenaphthylene	4.02	0.0200	0.0401	mg/kg	2	4.00	---	100	32-132%	---	---	
Anthracene	3.72	0.0200	0.0401	mg/kg	2	4.00	---	93	47-123%	---	---	
Benz(a)anthracene	3.67	0.0200	0.0401	mg/kg	2	4.00	---	92	49-126%	---	---	
Benzo(a)pyrene	3.59	0.0300	0.0600	mg/kg	2	4.00	---	90	45-129%	---	---	
Benzo(b)fluoranthene	3.55	0.0300	0.0600	mg/kg	2	4.00	---	89	45-132%	---	---	
Benzo(k)fluoranthene	3.67	0.0300	0.0600	mg/kg	2	4.00	---	92	47-132%	---	---	
Benzo(g,h,i)perylene	3.94	0.0200	0.0401	mg/kg	2	4.00	---	98	43-134%	---	---	
Chrysene	3.50	0.0200	0.0401	mg/kg	2	4.00	---	87	50-124%	---	---	
Dibenz(a,h)anthracene	3.70	0.0200	0.0401	mg/kg	2	4.00	---	92	45-134%	---	---	
Fluoranthene	3.81	0.0200	0.0401	mg/kg	2	4.00	---	95	50-127%	---	---	
Fluorene	3.66	0.0200	0.0401	mg/kg	2	4.00	---	92	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	3.64	0.0200	0.0401	mg/kg	2	4.00	---	91	45-133%	---	---	
1-Methylnaphthalene	3.60	0.0401	0.0800	mg/kg	2	4.00	---	90	40-120%	---	---	
2-Methylnaphthalene	3.65	0.0401	0.0800	mg/kg	2	4.00	---	91	38-122%	---	---	
Naphthalene	3.42	0.0401	0.0800	mg/kg	2	4.00	---	86	35-123%	---	---	
Phenanthrene	3.42	0.0200	0.0401	mg/kg	2	4.00	---	85	50-121%	---	---	
Pyrene	3.68	0.0200	0.0401	mg/kg	2	4.00	---	92	47-127%	---	---	
Carbazole	3.84	0.0300	0.0600	mg/kg	2	4.00	---	96	50-123%	---	---	
Dibenzofuran	3.58	0.0200	0.0401	mg/kg	2	4.00	---	90	44-120%	---	---	
Bis(2-ethylhexyl)phthalate	3.82	0.300	0.600	mg/kg	2	4.00	---	96	51-133%	---	---	
Butyl benzyl phthalate	4.07	0.200	0.401	mg/kg	2	4.00	---	102	48-132%	---	---	
Diethylphthalate	3.75	0.200	0.401	mg/kg	2	4.00	---	94	50-124%	---	---	
Dimethylphthalate	3.86	0.200	0.401	mg/kg	2	4.00	---	97	48-124%	---	---	
Di-n-butylphthalate	3.97	0.200	0.401	mg/kg	2	4.00	---	99	51-128%	---	---	
Di-n-octyl phthalate	4.06	0.200	0.401	mg/kg	2	4.00	---	101	45-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 85 %		Limits: 37-122 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		85 %		44-120 %		"						
Phenol-d6 (Surr)		91 %		33-122 %		"						
p-Terphenyl-d14 (Surr)		92 %		54-127 %		"						
2-Fluorophenol (Surr)		82 %		35-120 %		"						
2,4,6-Tribromophenol (Surr)		98 %		39-132 %		"						

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Semivolatile Organic Compounds by EPA 8270E**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120994 - EPA 3546						Solid						
Duplicate (0120994-DUP3)			Prepared: 12/30/20 11:44 Analyzed: 12/30/20 19:45									
QC Source Sample: CB-1 (A0L0698-01)												
EPA 8270E												
Acenaphthene	ND	0.911	1.83	mg/kg	40	---	0.957	---	---	***	30%	Q-17
Acenaphthylene	ND	0.911	1.83	mg/kg	40	---	ND	---	---	---	30%	
Anthracene	3.54	0.911	1.83	mg/kg	40	---	3.07	---	---	14	30%	
Benz(a)anthracene	16.5	0.911	1.83	mg/kg	40	---	14.4	---	---	13	30%	
Benzo(a)pyrene	22.5	1.37	2.74	mg/kg	40	---	21.4	---	---	5	30%	
Benzo(b)fluoranthene	28.7	1.37	2.74	mg/kg	40	---	27.3	---	---	5	30%	
Benzo(k)fluoranthene	18.9	1.37	2.74	mg/kg	40	---	18.6	---	---	2	30%	
Benzo(g,h,i)perylene	21.5	0.911	1.83	mg/kg	40	---	21.1	---	---	2	30%	
Chrysene	27.7	0.911	1.83	mg/kg	40	---	26.6	---	---	4	30%	
Dibenz(a,h)anthracene	3.05	0.911	1.83	mg/kg	40	---	2.90	---	---	5	30%	
Fluoranthene	44.7	0.911	1.83	mg/kg	40	---	41.2	---	---	8	30%	
Fluorene	0.918	0.911	1.83	mg/kg	40	---	ND	---	---		30%	Q-17, J
Indeno(1,2,3-cd)pyrene	21.5	0.911	1.83	mg/kg	40	---	21.1	---	---	2	30%	
1-Methylnaphthalene	ND	1.83	3.65	mg/kg	40	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	1.83	3.65	mg/kg	40	---	ND	---	---	---	30%	
Naphthalene	ND	1.83	3.65	mg/kg	40	---	ND	---	---	---	30%	
Phenanthrene	18.0	0.911	1.83	mg/kg	40	---	17.2	---	---	5	30%	
Pyrene	41.0	0.911	1.83	mg/kg	40	---	37.4	---	---	9	30%	
Carbazole	5.98	1.37	2.74	mg/kg	40	---	5.29	---	---	12	30%	
Dibenzofuran	ND	0.911	1.83	mg/kg	40	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	13.7	27.4	mg/kg	40	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	9.11	18.3	mg/kg	40	---	ND	---	---	---	30%	
Diethylphthalate	ND	9.11	18.3	mg/kg	40	---	ND	---	---	---	30%	
Dimethylphthalate	ND	9.11	18.3	mg/kg	40	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	9.11	18.3	mg/kg	40	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	9.11	18.3	mg/kg	40	---	ND	---	---	---	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 56 %		Limits: 37-122 %		Dilution: 40x		S-05				
2-Fluorobiphenyl (Surr)		71 %		44-120 %		"		S-05				
Phenol-d6 (Surr)		64 %		33-122 %		"		S-05				
p-Terphenyl-d14 (Surr)		85 %		54-127 %		"		S-05				
2-Fluorophenol (Surr)		57 %		35-120 %		"		S-05				
2,4,6-Tribromophenol (Surr)		186 %		39-132 %		"		S-05				

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120994 - EPA 3546							Solid					

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012474 - EPA 3051A						Solid						
Blank (1012474-BLK1)			Prepared: 01/04/21 13:11		Analyzed: 01/04/21 15:39							
EPA 6020B												
Antimony	ND	0.481	0.962	mg/kg	10	---	---	---	---	---	---	
Arsenic	ND	0.481	0.962	mg/kg	10	---	---	---	---	---	---	
Beryllium	ND	0.0962	0.192	mg/kg	10	---	---	---	---	---	---	
Cadmium	ND	0.0962	0.192	mg/kg	10	---	---	---	---	---	---	
Chromium	ND	0.481	0.962	mg/kg	10	---	---	---	---	---	---	
Copper	ND	0.962	1.92	mg/kg	10	---	---	---	---	---	---	
Lead	ND	0.0962	0.192	mg/kg	10	---	---	---	---	---	---	
Mercury	ND	0.0385	0.0769	mg/kg	10	---	---	---	---	---	---	
Nickel	ND	0.962	1.92	mg/kg	10	---	---	---	---	---	---	
Selenium	ND	0.481	0.962	mg/kg	10	---	---	---	---	---	---	
Silver	ND	0.0962	0.192	mg/kg	10	---	---	---	---	---	---	
Thallium	ND	0.0962	0.192	mg/kg	10	---	---	---	---	---	---	
Zinc	ND	1.92	3.85	mg/kg	10	---	---	---	---	---	---	

LCS (1012474-BS1)

Prepared: 01/04/21 13:11 Analyzed: 01/04/21 15:44

EPA 6020B												
Antimony	23.9	0.500	1.00	mg/kg	10	25.0	---	95	80-120%	---	---	
Arsenic	50.9	0.500	1.00	mg/kg	10	50.0	---	102	80-120%	---	---	
Beryllium	27.1	0.100	0.200	mg/kg	10	25.0	---	108	80-120%	---	---	
Cadmium	46.6	0.100	0.200	mg/kg	10	50.0	---	93	80-120%	---	---	
Chromium	52.3	0.500	1.00	mg/kg	10	50.0	---	105	80-120%	---	---	
Copper	54.2	1.00	2.00	mg/kg	10	50.0	---	108	80-120%	---	---	
Lead	49.7	0.100	0.200	mg/kg	10	50.0	---	99	80-120%	---	---	
Mercury	0.995	0.0400	0.0800	mg/kg	10	1.00	---	100	80-120%	---	---	
Nickel	54.5	1.00	2.00	mg/kg	10	50.0	---	109	80-120%	---	---	
Selenium	23.3	0.500	1.00	mg/kg	10	25.0	---	93	80-120%	---	---	
Silver	26.0	0.100	0.200	mg/kg	10	25.0	---	104	80-120%	---	---	
Thallium	26.4	0.100	0.200	mg/kg	10	25.0	---	106	80-120%	---	---	
Zinc	51.4	2.00	4.00	mg/kg	10	50.0	---	103	80-120%	---	---	

Duplicate (1012474-DUP1)

Prepared: 01/04/21 13:11 Analyzed: 01/04/21 16:26

QC Source Sample: CB-4 (A0L0698-04)**EPA 6020B**

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Philip Nerenberg, Lab Director

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012474 - EPA 3051A							Solid					
Duplicate (1012474-DUP1)			Prepared: 01/04/21 13:11		Analyzed: 01/04/21 16:26							
QC Source Sample: CB-4 (A0L0698-04)												
Antimony	7.29	0.541	1.08	mg/kg	10	---	2.48	---	---	98	20%	Q-04, Q-05
Arsenic	3.77	0.541	1.08	mg/kg	10	---	3.43	---	---	10	20%	
Beryllium	ND	0.108	0.216	mg/kg	10	---	ND	---	---	---	20%	
Cadmium	2.16	0.108	0.216	mg/kg	10	---	2.24	---	---	3	20%	
Chromium	283	0.541	1.08	mg/kg	10	---	276	---	---	3	20%	
Copper	146	1.08	2.16	mg/kg	10	---	143	---	---	2	20%	
Lead	63.0	0.108	0.216	mg/kg	10	---	63.9	---	---	1	20%	
Mercury	0.388	0.0433	0.0866	mg/kg	10	---	0.375	---	---	3	20%	
Nickel	36.1	1.08	2.16	mg/kg	10	---	32.2	---	---	12	20%	
Selenium	ND	0.541	1.08	mg/kg	10	---	ND	---	---	---	20%	
Silver	0.237	0.108	0.216	mg/kg	10	---	0.223	---	---	6	20%	
Thallium	ND	0.108	0.216	mg/kg	10	---	ND	---	---	---	20%	
Zinc	596	2.16	4.33	mg/kg	10	---	606	---	---	2	20%	

Matrix Spike (1012474-MS1)

Prepared: 01/04/21 13:11 Analyzed: 01/04/21 16:32

QC Source Sample: CB-4 (A0L0698-04)

EPA 6020B												
Antimony	28.6	0.554	1.11	mg/kg	10	27.7	2.48	94	75-125%	---	---	Q-03, Q-04 A-01, Q-01
Arsenic	56.1	0.554	1.11	mg/kg	10	55.4	3.43	95	75-125%	---	---	
Beryllium	27.1	0.111	0.222	mg/kg	10	27.7	ND	98	75-125%	---	---	
Cadmium	51.9	0.111	0.222	mg/kg	10	55.4	2.24	90	75-125%	---	---	
Chromium	183	0.554	1.11	mg/kg	10	55.4	276	-167	75-125%	---	---	
Copper	220	1.11	2.22	mg/kg	10	55.4	143	140	75-125%	---	---	
Lead	115	0.111	0.222	mg/kg	10	55.4	63.9	93	75-125%	---	---	
Mercury	1.41	0.0443	0.0887	mg/kg	10	1.11	0.375	93	75-125%	---	---	
Nickel	88.9	1.11	2.22	mg/kg	10	55.4	32.2	102	75-125%	---	---	
Selenium	25.8	0.554	1.11	mg/kg	10	27.7	ND	93	75-125%	---	---	
Silver	27.4	0.111	0.222	mg/kg	10	27.7	0.223	98	75-125%	---	---	
Thallium	28.0	0.111	0.222	mg/kg	10	27.7	ND	101	75-125%	---	---	
Zinc	627	2.22	4.43	mg/kg	10	55.4	606	38	75-125%	---	---	Q-03

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****QUALITY CONTROL (QC) SAMPLE RESULTS****Percent Dry Weight**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120933 - Total Solids (Dry Weight)							Soil					
Duplicate (0120933-DUP1)			Prepared: 12/29/20 09:00 Analyzed: 12/30/20 07:25									
QC Source Sample: Non-SDG (A0L0953-01)												
% Solids	93.2	1.00	1.00	%	1	---	93.7	---	---	0.5	10%	
Duplicate (0120933-DUP2)			Prepared: 12/29/20 09:00 Analyzed: 12/30/20 07:25									
QC Source Sample: Non-SDG (A0L0955-02)												
% Solids	74.8	1.00	1.00	%	1	---	75.5	---	---	0.9	10%	TEMP
Duplicate (0120933-DUP3)			Prepared: 12/29/20 18:10 Analyzed: 12/30/20 07:25									
QC Source Sample: Non-SDG (A0L0978-02)												
% Solids	78.7	1.00	1.00	%	1	---	78.1	---	---	0.7	10%	
Duplicate (0120933-DUP4)			Prepared: 12/29/20 18:10 Analyzed: 12/30/20 07:25									
QC Source Sample: Non-SDG (A0L0982-02)												
% Solids	73.0	1.00	1.00	%	1	---	73.5	---	---	0.8	10%	
Duplicate (0120933-DUP5)			Prepared: 12/29/20 18:10 Analyzed: 12/30/20 07:25									
QC Source Sample: Non-SDG (A0L0985-04)												
% Solids	69.4	1.00	1.00	%	1	---	69.8	---	---	0.6	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0120974 - Total Solids (Dry Weight)							Soil					
Duplicate (0120974-DUP1)			Prepared: 12/30/20 07:28		Analyzed: 12/31/20 07:21							
QC Source Sample: Non-SDG (A0L0967-01)												
% Solids	79.4	1.00	1.00	%	1	---	80.6	---	---	1	10%	
Duplicate (0120974-DUP2)			Prepared: 12/30/20 17:50		Analyzed: 12/31/20 07:21							
QC Source Sample: CB-6 (A0L0698-07)												
EPA 8000D												
% Solids	33.5	1.00	1.00	%	1	---	33.5	---	---	0.03	10%	
Duplicate (0120974-DUP3)			Prepared: 12/30/20 17:50		Analyzed: 12/31/20 07:21							
QC Source Sample: Non-SDG (A0L1027-02)												
% Solids	92.2	1.00	1.00	%	1	---	92.4	---	---	0.2	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

SAMPLE PREPARATION INFORMATION**Diesel and/or Oil Hydrocarbons by NWTPH-Dx****Prep: EPA 3546 (Fuels)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0120816							
A0L0698-01RE2	Solid	NWTPH-Dx	12/17/20 10:10	12/22/20 12:44	10.03g/5mL	10g/5mL	1.00
A0L0698-02RE1	Solid	NWTPH-Dx	12/17/20 08:50	12/22/20 12:44	10.22g/5mL	10g/5mL	0.98
A0L0698-03RE1	Solid	NWTPH-Dx	12/17/20 09:15	12/22/20 12:44	10.41g/5mL	10g/5mL	0.96
A0L0698-04RE1	Solid	NWTPH-Dx	12/17/20 11:00	12/22/20 12:44	10.39g/5mL	10g/5mL	0.96
A0L0698-05RE1	Solid	NWTPH-Dx	12/17/20 11:05	12/22/20 12:44	10.1g/5mL	10g/5mL	0.99
A0L0698-06RE1	Solid	NWTPH-Dx	12/17/20 11:35	12/22/20 12:44	10.25g/5mL	10g/5mL	0.98
A0L0698-07RE1	Solid	NWTPH-Dx	12/17/20 13:10	12/22/20 12:44	10.28g/5mL	10g/5mL	0.97
A0L0698-08RE1	Solid	NWTPH-Dx	12/17/20 12:30	12/22/20 12:44	10.08g/5mL	10g/5mL	0.99

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**Prep: EPA 5035A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0120837							
A0L0698-06	Solid	NWTPH-Gx (MS)	12/17/20 11:35	12/17/20 11:35	6.08g/5mL	5g/5mL	0.82
A0L0698-07	Solid	NWTPH-Gx (MS)	12/17/20 13:10	12/17/20 13:10	4.01g/5mL	5g/5mL	1.25
A0L0698-08	Solid	NWTPH-Gx (MS)	12/17/20 12:30	12/17/20 12:30	6.67g/5mL	5g/5mL	0.75
Batch: 0120869							
A0L0698-01	Solid	NWTPH-Gx (MS)	12/17/20 10:10	12/17/20 10:10	4.11g/5mL	5g/5mL	1.22
A0L0698-03	Solid	NWTPH-Gx (MS)	12/17/20 09:15	12/17/20 09:15	5.52g/5mL	5g/5mL	0.91
A0L0698-04	Solid	NWTPH-Gx (MS)	12/17/20 11:00	12/17/20 11:00	5.24g/5mL	5g/5mL	0.95
A0L0698-05	Solid	NWTPH-Gx (MS)	12/17/20 11:05	12/17/20 11:05	7.29g/5mL	5g/5mL	0.69
Batch: 0120899							
A0L0698-02RE1	Solid	NWTPH-Gx (MS)	12/17/20 08:50	12/17/20 08:50	2.85g/5mL	5g/5mL	1.75

Volatile Organic Compounds by EPA 8260D**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0120732							
A0L0698-09	Water	EPA 8260D	12/17/20 13:30	12/19/20 20:00	5mL/5mL	5mL/5mL	1.00

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0120837							

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****SAMPLE PREPARATION INFORMATION****Volatile Organic Compounds by EPA 8260D****Prep: EPA 5035A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A0L0698-06	Solid	5035A/8260D	12/17/20 11:35	12/17/20 11:35	6.08g/5mL	5g/5mL	0.82
A0L0698-07	Solid	5035A/8260D	12/17/20 13:10	12/17/20 13:10	4.01g/5mL	5g/5mL	1.25
A0L0698-08	Solid	5035A/8260D	12/17/20 12:30	12/17/20 12:30	6.67g/5mL	5g/5mL	0.75
Batch: 0120869							
A0L0698-01	Solid	5035A/8260D	12/17/20 10:10	12/17/20 10:10	4.11g/5mL	5g/5mL	1.22
A0L0698-03	Solid	5035A/8260D	12/17/20 09:15	12/17/20 09:15	5.52g/5mL	5g/5mL	0.91
A0L0698-04	Solid	5035A/8260D	12/17/20 11:00	12/17/20 11:00	5.24g/5mL	5g/5mL	0.95
A0L0698-05	Solid	5035A/8260D	12/17/20 11:05	12/17/20 11:05	7.29g/5mL	5g/5mL	0.69
Batch: 0120899							
A0L0698-02RE1	Solid	5035A/8260D	12/17/20 08:50	12/17/20 08:50	2.85g/5mL	5g/5mL	1.75

Polychlorinated Biphenyls by EPA 8082A**Prep: EPA 3546**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0121020							
A0L0698-01RE1	Solid	EPA 8082A	12/17/20 10:10	12/31/20 06:56	2.19g/2mL	10g/2mL	4.57
A0L0698-02RE1	Solid	EPA 8082A	12/17/20 08:50	12/31/20 06:56	2.36g/2mL	10g/2mL	4.24
A0L0698-03RE1	Solid	EPA 8082A	12/17/20 09:15	12/31/20 06:56	2.45g/2mL	10g/2mL	4.08
A0L0698-04RE1	Solid	EPA 8082A	12/17/20 11:00	12/31/20 06:56	2.16g/2mL	10g/2mL	4.63
A0L0698-05RE1	Solid	EPA 8082A	12/17/20 11:05	12/31/20 06:56	2.61g/2mL	10g/2mL	3.83
A0L0698-06	Solid	EPA 8082A	12/17/20 11:35	12/31/20 06:56	2.08g/2mL	10g/2mL	4.81
A0L0698-07RE1	Solid	EPA 8082A	12/17/20 13:10	12/31/20 06:56	2.04g/2mL	10g/2mL	4.90
A0L0698-08RE1	Solid	EPA 8082A	12/17/20 12:30	12/31/20 06:56	2.07g/2mL	10g/2mL	4.83

Organochlorine Pesticides by EPA 8081B**Prep: EPA 3546**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0121015							
A0L0698-01RE1	Solid	EPA 8081B	12/17/20 10:10	12/30/20 11:45	2.42g/20mL	10g/5mL	16.50
A0L0698-02RE1	Solid	EPA 8081B	12/17/20 08:50	12/30/20 11:45	2.55g/20mL	10g/5mL	15.70
A0L0698-03RE1	Solid	EPA 8081B	12/17/20 09:15	12/30/20 11:45	2.15g/20mL	10g/5mL	18.60
A0L0698-04RE1	Solid	EPA 8081B	12/17/20 11:00	12/30/20 11:45	2.12g/20mL	10g/5mL	18.90
A0L0698-05RE1	Solid	EPA 8081B	12/17/20 11:05	12/30/20 11:45	2.08g/20mL	10g/5mL	19.20
A0L0698-06RE1	Solid	EPA 8081B	12/17/20 11:35	12/30/20 11:45	2.04g/20mL	10g/5mL	19.60

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

SAMPLE PREPARATION INFORMATION**Organochlorine Pesticides by EPA 8081B****Prep: EPA 3546**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A0L0698-07RE1	Solid	EPA 8081B	12/17/20 13:10	12/30/20 11:45	2.12g/10mL	10g/5mL	9.43
A0L0698-08RE1	Solid	EPA 8081B	12/17/20 12:30	12/30/20 11:45	2.31g/10mL	10g/5mL	8.66

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3546**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0120994							
A0L0698-01	Solid	EPA 8270E	12/17/20 10:10	12/30/20 11:44	2.13g/5mL	15g/2mL	17.60
A0L0698-02	Solid	EPA 8270E	12/17/20 08:50	12/30/20 11:44	2.41g/5mL	15g/2mL	15.60
A0L0698-03	Solid	EPA 8270E	12/17/20 09:15	12/30/20 11:44	2.3g/5mL	15g/2mL	16.30
A0L0698-04RE1	Solid	EPA 8270E	12/17/20 11:00	12/30/20 11:44	2.19g/5mL	15g/2mL	17.10
A0L0698-05RE1	Solid	EPA 8270E	12/17/20 11:05	12/30/20 11:44	2.6g/5mL	15g/2mL	14.40
A0L0698-06RE1	Solid	EPA 8270E	12/17/20 11:35	12/30/20 11:44	2.53g/5mL	15g/2mL	14.80
A0L0698-07	Solid	EPA 8270E	12/17/20 13:10	12/30/20 11:44	2.26g/2mL	15g/2mL	6.64
A0L0698-08	Solid	EPA 8270E	12/17/20 12:30	12/30/20 11:44	2.32g/2mL	15g/2mL	6.47

Total Metals by EPA 6020B (ICPMS)**Prep: EPA 3051A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1012474							
A0L0698-01	Solid	EPA 6020B	12/17/20 10:10	01/04/21 13:11	0.497g/50mL	0.5g/50mL	1.01
A0L0698-02	Solid	EPA 6020B	12/17/20 08:50	01/04/21 13:11	0.499g/50mL	0.5g/50mL	1.00
A0L0698-03	Solid	EPA 6020B	12/17/20 09:15	01/04/21 13:11	0.5g/50mL	0.5g/50mL	1.00
A0L0698-03RE1	Solid	EPA 6020B	12/17/20 09:15	01/04/21 13:11	0.5g/50mL	0.5g/50mL	1.00
A0L0698-04	Solid	EPA 6020B	12/17/20 11:00	01/04/21 13:11	0.457g/50mL	0.5g/50mL	1.09
A0L0698-05	Solid	EPA 6020B	12/17/20 11:05	01/04/21 13:11	0.47g/50mL	0.5g/50mL	1.06
A0L0698-06	Solid	EPA 6020B	12/17/20 11:35	01/04/21 13:11	0.481g/50mL	0.5g/50mL	1.04
A0L0698-07	Solid	EPA 6020B	12/17/20 13:10	01/04/21 13:11	0.465g/50mL	0.5g/50mL	1.08
A0L0698-08	Solid	EPA 6020B	12/17/20 12:30	01/04/21 13:11	0.482g/50mL	0.5g/50mL	1.04

Percent Dry Weight**Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0120933							

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GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A0L0698 - 01 11 21 2200

SAMPLE PREPARATION INFORMATION**Percent Dry Weight****Prep: Total Solids (Dry Weight)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A0L0698-05	Solid	EPA 8000D	12/17/20 11:05	12/29/20 18:10			NA
Batch: 0120974							
A0L0698-01	Solid	EPA 8000D	12/17/20 10:10	12/30/20 17:50			NA
A0L0698-02	Solid	EPA 8000D	12/17/20 08:50	12/30/20 17:50			NA
A0L0698-03	Solid	EPA 8000D	12/17/20 09:15	12/30/20 17:50			NA
A0L0698-04	Solid	EPA 8000D	12/17/20 11:00	12/30/20 17:50			NA
A0L0698-06	Solid	EPA 8000D	12/17/20 11:35	12/30/20 17:50			NA
A0L0698-07	Solid	EPA 8000D	12/17/20 13:10	12/30/20 17:50			NA
A0L0698-08	Solid	EPA 8000D	12/17/20 12:30	12/30/20 17:50			NA

Apex Laboratories

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** Serial dilution was performed and passes acceptance criteria. Data are acceptable.
- C-05** Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- F-03** The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- P-12** Result estimated due to the presence of multiple PCB Aroclors and/or PCB congeners not defined as Aroclors.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-17** RPD between original and duplicate sample is outside of established control limits.
- Q-18** Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
- Q-30** Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +23%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +36%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +43%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.

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A0L0698 - 01 11 21 2200

- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -10%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -13%. The results are reported as Estimated Values.
- Q-54i** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -15%. The results are reported as Estimated Values.
- Q-54j** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
- Q-54k** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
- Q-54l** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -5%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-01** Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-03** Reextraction and analysis, or analysis of laboratory duplicate, confirms surrogate failure due to sample matrix effect.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- S-06** Surrogate recovery is outside of established control limits.
- TEMP** Sample(s) received outside of recommended temperature. See Case Narrative.
- V-15** Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A0L0698 - 01 11 21 2200****REPORTING NOTES AND CONVENTIONS:****Abbreviations:**

DET	Analyte DETECTED at or above the detection or reporting limit.
ND	Analyte NOT DETECTED at or above the detection or reporting limit.
NR	Result Not Reported
RPD	Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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A0L0698 - 01 11 21 2200

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A0L0698 - 01 11 21 2200

APEX LABS COOLER RECEIPT FORM

Client: GeoDesign Element WO#: A0 L0698

Project/Project #: # BCS America-1-02 Former Automatic Vending Co.

Delivery Info:

Date/time received: 12/17/10 @ 1530 By: AKK

Delivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐

Cooler Inspection Date/time inspected: 12/17/10 @ 1530 By: AKK

Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒

Signed/dated by client? Yes ☒ No ☐

Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.7</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Melty</u>						

Cooler out of temp? (Y/N) ☒ Possible reason why: _____

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA ☒

Out of temperature samples form initiated? Yes/No/NA ☒

Samples Inspection: Date/time inspected: 12/17/10 @ 1100 By: JS

All samples intact? Yes ☒ No ☐ Comments: _____

Bottle labels/COCs agree? Yes ☒ No ☐ Comments: _____

COC/container discrepancies form initiated? Yes ☐ No ☒

Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____

Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☐ No ☐ NA ☒ pH appropriate? Yes ☐ No ☐ NA ☒

Comments: _____

Additional information:

Labeled by: JS Witness: AKK Cooler Inspected by: AKK See Project Contact Form: Y

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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January 12, 2021

Mr. Philip Nerenberg
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: DXN & PCB Subcontract
Work Order: 17535
SDG: A0L0698

Dear Mr. Nerenberg:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 22, 2020. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Enclosures

SUBCONTRACT ORDER

ET

Apex Laboratories

AB 12/18/20 A0L0698

CFA WO #17535

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone: (910) 795-0421
Fax: -

✓ Sample Name: CB-1		Solid	Sampled: 12/17/20 10:10	(A0L0698-01)
Analysis	Due	Expires	Comments	
1613B Dioxins and Furans (SUB)	01/08/21 17:00	06/15/21 10:10	Sub Cape Fear	
Containers Supplied: (C)4 oz Glass Jar				

✓ Sample Name: CB-2		Solid	Sampled: 12/17/20 08:50	(A0L0698-02)
Analysis	Due	Expires	Comments	
1613B Dioxins and Furans (SUB)	01/08/21 17:00	06/15/21 08:50	Sub Cape Fear	
Containers Supplied: (C)4 oz Glass Jar				

✓ Sample Name: CB-3		Solid	Sampled: 12/17/20 09:15	(A0L0698-03)
Analysis	Due	Expires	Comments	
1613B Dioxins and Furans (SUB)	01/08/21 17:00	06/15/21 09:15	Sub Cape Fear	
Containers Supplied: (C)4 oz Glass Jar				

✓ Sample Name: CB-4		Solid	Sampled: 12/17/20 11:00	(A0L0698-04)
Analysis	Due	Expires	Comments	
1613B Dioxins and Furans (SUB)	01/08/21 17:00	06/15/21 11:00	Sub Cape Fear	
Containers Supplied: (C)4 oz Glass Jar				

Standard TAT

Released By	Date	Fed Ex (Shipper)	temp. = 1.8°C
	12/21/20		
Released By	Date	Received By	Date
			12/22/20 13:00

SUBCONTRACT ORDER

Apex Laboratories

A0L0698

CFA NO # 17535

✓ Sample Name: CB-4_DUP

Solid

Sampled: 12/17/20 11:05

(A0L0698-05)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB) Containers Supplied: (C)4 oz Glass Jar	01/08/21 17:00	06/15/21 11:05	Sub Cape Fear

✓ Sample Name: CB-5

Solid

Sampled: 12/17/20 11:35

(A0L0698-06)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB) Containers Supplied: (C)4 oz Glass Jar	01/08/21 17:00	06/15/21 11:35	Sub Cape Fear

✓ Sample Name: CB-6

Solid

Sampled: 12/17/20 13:10

(A0L0698-07)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB) Containers Supplied: (C)4 oz Glass Jar	01/08/21 17:00	06/15/21 13:10	Sub Cape Fear

✓ Sample Name: CB-7

Solid

Sampled: 12/17/20 12:30

(A0L0698-08)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB) Containers Supplied: (C)4 oz Glass Jar	01/08/21 17:00	06/15/21 12:30	Sub Cape Fear

Standard RAT

Released By

Date

Fed Ex (Shipper)

Received By

Date

Released By

Date

Received By

Date

Fed Ex (Shipper)

12/22/20

13:00

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: <u>Apex</u>	Work Order: <u>17535</u>
Shipping Company: <u>FedEx</u>	Date/Time Received: <u>12/22/20</u> <u>13:00</u>

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?		<input checked="" type="checkbox"/>	
Samples < 2x background?		<input checked="" type="checkbox"/>	

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?			<input checked="" type="checkbox"/>	Seal intact? Yes No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags loose ice blue ice dry ice none other (describe) Temperature Blank present: <u>Yes</u> No <u>1.8mL = LB</u>
5 Aqueous samples found to have visible solids?		<input checked="" type="checkbox"/>		Sample IDs, containers affected:
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample IDs, containers affected and pH observed:
7 Samples requiring preservation have no residual chlorine?		<input checked="" type="checkbox"/>		If preservative added, Lot#: Sample IDs, containers affected:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			If preservative added, Lot#: Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			List type and number of containers / Sample IDs, containers affected: <u>received 8 - 4oz clear</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A0L0698
Work Order 17535**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Solids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3540C
Analytical Batch Number: 45696
Clean Up Batch Number: 45695
Extraction Batch Number: 45694

Sample Analysis

Samples were received at 1.8°C.
(17535001,17535002,17535003,17535004,17535005,17535006,17535007,17535008). The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12028283	Method Blank (MB)
12028284	Laboratory Control Sample (LCS)
12028285	Laboratory Control Sample Duplicate (LCSD)
17535001	CB-1
17535002	CB-2
17535003	CB-3
17535004	CB-4
17535005	CB-4_DUP
17535006	CB-5
17535007	CB-6
17535008	CB-7

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 18.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A sample of similar matrix, not associated with this SDG, was selected for analysis as the matrix spike and matrix spike duplicate.

Technical Information

Receipt Temperature

Samples were received within temperature requirements.

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All samples were extracted @ 1g due to oil appearance and odor. Batch 45696.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information**Nonconformance (NCR) Documentation**

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

Sample Preparation

No difficulties were encountered during sample preparation.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP750_2	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um
HRP757_3	Confirmation Analysis	TCDF Confirmation	DB-225	30m x 0.25mm, 0.25um

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A0L0698 CFA Work Order: 17535

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature:



Name: Erin Suhrie

Date: 12 JAN 2021

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0L0698
Lab Sample ID: 17535001
Client Sample: 1613B Soil
Client ID: CB-1
Batch ID: 45696
Run Date: 01/06/2021 17:52
Data File: A06JAN21A_2-5
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 10:10
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3540C
Prep Aliquot: 1.06 g

Project: APEX00320
Matrix: SOIL
%Moisture: 66
Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	12.8	pg/g	12.8	27.8
40321-76-4	1,2,3,7,8-PeCDD	J	14.4	pg/g	8.10	139
39227-28-6	1,2,3,4,7,8-HxCDD	U	11.0	pg/g	11.0	139
57653-85-7	1,2,3,6,7,8-HxCDD	JK	11.4	pg/g	11.1	139
19408-74-3	1,2,3,7,8,9-HxCDD	JK	26.9	pg/g	11.2	139
35822-46-9	1,2,3,4,6,7,8-HpCDD		294	pg/g	35.6	139
3268-87-9	1,2,3,4,6,7,8,9-OCDD		3550	pg/g	33.1	278
51207-31-9	2,3,7,8-TCDF	U	11.4	pg/g	11.4	27.8
57117-41-6	1,2,3,7,8-PeCDF	U	5.61	pg/g	5.61	139
57117-31-4	2,3,4,7,8-PeCDF	U	5.35	pg/g	5.35	139
70648-26-9	1,2,3,4,7,8-HxCDF	J	7.55	pg/g	6.11	139
57117-44-9	1,2,3,6,7,8-HxCDF	U	6.11	pg/g	6.11	139
60851-34-5	2,3,4,6,7,8-HxCDF	JK	7.72	pg/g	6.55	139
72918-21-9	1,2,3,7,8,9-HxCDF	U	9.38	pg/g	9.38	139
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	56.6	pg/g	11.0	139
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	16.9	pg/g	16.9	139
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	97.3	pg/g	23.9	278
41903-57-5	Total TeCDD	U	12.8	pg/g	12.8	27.8
36088-22-9	Total PeCDD	JK	80.7	pg/g	8.10	139
34465-46-8	Total HxCDD	JK	180	pg/g	11.0	139
37871-00-4	Total HpCDD		624	pg/g	35.6	139
30402-14-3	Total TeCDF	U	11.4	pg/g	11.4	27.8
30402-15-4	Total PeCDF	JK	30.9	pg/g	3.22	139
55684-94-1	Total HxCDF	JK	73.9	pg/g	6.11	139
38998-75-3	Total HpCDF	JK	141	pg/g	11.0	139
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		24.4	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		33.7	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		4790	5550	pg/g	86.2	(25%-164%)
13C-1,2,3,7,8-PeCDD		4820	5550	pg/g	86.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		4150	5550	pg/g	74.7	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		4080	5550	pg/g	73.6	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		4750	5550	pg/g	85.5	(23%-140%)
13C-OCDD		8940	11100	pg/g	80.5	(17%-157%)
13C-2,3,7,8-TCDF		4850	5550	pg/g	87.4	(24%-169%)
13C-1,2,3,7,8-PeCDF		5270	5550	pg/g	95.0	(24%-185%)
13C-2,3,4,7,8-PeCDF		5200	5550	pg/g	93.7	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		4280	5550	pg/g	77.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		4310	5550	pg/g	77.7	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		4320	5550	pg/g	77.8	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		4480	5550	pg/g	80.7	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number: A0L0698
Lab Sample ID: 17535001
Client Sample: 1613B Soil
Client ID: CB-1
Batch ID: 45696
Run Date: 01/06/2021 17:52
Data File: A06JAN21A_2-5
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 10:10
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3540C
Prep Aliquot: 1.06 g

Project: APEX00320
Matrix: SOIL
%Moisture: 66
Prep Basis: Dry Weight
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			4650	5550	pg/g	83.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			4880	5550	pg/g	87.9	(26%-138%)
37Cl-2,3,7,8-TCDD			472	555	pg/g	85.0	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0L0698
Lab Sample ID: 17535002
Client Sample: 1613B Soil
Client ID: CB-2
Batch ID: 45696
Run Date: 01/04/2021 01:28
Data File: A03JAN21A_2-9
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 08:50
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.02 g

Project: APEX00320
Matrix: SOIL
%Moisture: 32.5

Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	J	2.76	pg/g	2.53	14.5
40321-76-4	1,2,3,7,8-PeCDD	JK	6.63	pg/g	2.10	72.7
39227-28-6	1,2,3,4,7,8-HxCDD	J	5.09	pg/g	2.55	72.7
57653-85-7	1,2,3,6,7,8-HxCDD	J	13.1	pg/g	2.47	72.7
19408-74-3	1,2,3,7,8,9-HxCDD	J	9.82	pg/g	2.54	72.7
35822-46-9	1,2,3,4,6,7,8-HpCDD		342	pg/g	8.95	72.7
3268-87-9	1,2,3,4,6,7,8,9-OCDD		4700	pg/g	10.5	145
51207-31-9	2,3,7,8-TCDF	U	4.04	pg/g	4.04	14.5
57117-41-6	1,2,3,7,8-PeCDF	BJ	3.20	pg/g	2.31	72.7
57117-31-4	2,3,4,7,8-PeCDF	JK	4.42	pg/g	2.24	72.7
70648-26-9	1,2,3,4,7,8-HxCDF	J	5.03	pg/g	2.29	72.7
57117-44-9	1,2,3,6,7,8-HxCDF	JK	4.24	pg/g	2.36	72.7
60851-34-5	2,3,4,6,7,8-HxCDF	J	5.41	pg/g	2.30	72.7
72918-21-9	1,2,3,7,8,9-HxCDF	U	3.49	pg/g	3.49	72.7
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	49.6	pg/g	2.67	72.7
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	4.07	pg/g	4.07	72.7
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	108	pg/g	3.81	145
41903-57-5	Total TeCDD	J	2.76	pg/g	2.53	14.5
36088-22-9	Total PeCDD	JK	22.8	pg/g	2.10	72.7
34465-46-8	Total HxCDD	JK	106	pg/g	2.47	72.7
37871-00-4	Total HpCDD		693	pg/g	8.95	72.7
30402-14-3	Total TeCDF	JK	19.3	pg/g	4.04	14.5
30402-15-4	Total PeCDF	JK	57.1	pg/g	0.721	72.7
55684-94-1	Total HxCDF	JK	85.3	pg/g	2.29	72.7
38998-75-3	Total HpCDF	J	137	pg/g	2.67	72.7
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		20.4	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		20.8	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		2290	2910	pg/g	78.7	(25%-164%)
13C-1,2,3,7,8-PeCDD		2830	2910	pg/g	97.4	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		2030	2910	pg/g	69.7	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		2060	2910	pg/g	71.0	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		2390	2910	pg/g	82.2	(23%-140%)
13C-OCDD		4660	5810	pg/g	80.2	(17%-157%)
13C-2,3,7,8-TCDF		2490	2910	pg/g	85.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		2840	2910	pg/g	97.8	(24%-185%)
13C-2,3,4,7,8-PeCDF		2890	2910	pg/g	99.5	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		2050	2910	pg/g	70.4	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		2000	2910	pg/g	68.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		2080	2910	pg/g	71.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		2090	2910	pg/g	72.0	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A0L0698	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17535002	Date Collected:	12/17/2020 08:50	Matrix:	SOIL
Client Sample:	1613B Soil	Date Received:	12/22/2020 13:00	%Moisture:	32.5
Client ID:	CB-2			Prep Basis:	Dry Weight
Batch ID:	45696	Method:	EPA Method 1613B		
Run Date:	01/04/2021 01:28	Analyst:	MJC	Instrument:	HRP750
Data File:	A03JAN21A_2-9			Dilution:	1
Prep Batch:	45694	Prep Method:	SW846 3540C		
Prep Date:	28-DEC-20	Prep Aliquot:	1.02 g		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			2190	2910	pg/g	75.2	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			2340	2910	pg/g	80.6	(26%-138%)
37Cl-2,3,7,8-TCDD			250	291	pg/g	86.0	(35%-197%)

Comments:

- B** The target analyte was detected in the associated blank.
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0L0698
Lab Sample ID: 17535003
Client Sample: 1613B Soil
Client ID: CB-3
Batch ID: 45696
Run Date: 01/04/2021 02:16
Data File: A03JAN21A_2-10
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 09:15
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.03 g

Project: APEX00320
Matrix: SOIL
%Moisture: 44.5

Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	4.20	pg/g	4.20	17.5
40321-76-4	1,2,3,7,8-PeCDD	JK	9.26	pg/g	4.09	87.4
39227-28-6	1,2,3,4,7,8-HxCDD	JK	7.38	pg/g	5.59	87.4
57653-85-7	1,2,3,6,7,8-HxCDD	J	13.0	pg/g	5.38	87.4
19408-74-3	1,2,3,7,8,9-HxCDD	J	13.7	pg/g	5.56	87.4
35822-46-9	1,2,3,4,6,7,8-HpCDD		300	pg/g	13.8	87.4
3268-87-9	1,2,3,4,6,7,8,9-OCDD		3320	pg/g	15.5	175
51207-31-9	2,3,7,8-TCDF	JK	5.80	pg/g	4.20	17.5
57117-41-6	1,2,3,7,8-PeCDF	JK	4.47	pg/g	3.07	87.4
57117-31-4	2,3,4,7,8-PeCDF	JK	5.28	pg/g	2.87	87.4
70648-26-9	1,2,3,4,7,8-HxCDF	J	7.59	pg/g	3.45	87.4
57117-44-9	1,2,3,6,7,8-HxCDF	JK	6.05	pg/g	3.53	87.4
60851-34-5	2,3,4,6,7,8-HxCDF	JK	5.38	pg/g	3.60	87.4
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.03	pg/g	5.03	87.4
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	59.0	pg/g	5.42	87.4
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	8.53	pg/g	8.53	87.4
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	112	pg/g	6.08	175
41903-57-5	Total TeCDD	U	4.20	pg/g	4.20	17.5
36088-22-9	Total PeCDD	JK	34.3	pg/g	4.09	87.4
34465-46-8	Total HxCDD	JK	125	pg/g	5.38	87.4
37871-00-4	Total HpCDD		631	pg/g	13.8	87.4
30402-14-3	Total TeCDF	JK	17.7	pg/g	4.20	17.5
30402-15-4	Total PeCDF	JK	66.7	pg/g	1.06	87.4
55684-94-1	Total HxCDF	JK	91.6	pg/g	3.45	87.4
38998-75-3	Total HpCDF	JK	149	pg/g	5.42	87.4
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		21.5	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		23.9	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		2450	3500	pg/g	70.2	(25%-164%)
13C-1,2,3,7,8-PeCDD		2650	3500	pg/g	75.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		2370	3500	pg/g	67.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		2430	3500	pg/g	69.6	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		2680	3500	pg/g	76.8	(23%-140%)
13C-OCDD		5190	6990	pg/g	74.2	(17%-157%)
13C-2,3,7,8-TCDF		2700	3500	pg/g	77.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		2720	3500	pg/g	77.8	(24%-185%)
13C-2,3,4,7,8-PeCDF		2740	3500	pg/g	78.4	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		2400	3500	pg/g	68.8	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		2410	3500	pg/g	68.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		2460	3500	pg/g	70.2	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		2480	3500	pg/g	71.0	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number: A0L0698
Lab Sample ID: 17535003
Client Sample: 1613B Soil
Client ID: CB-3
Batch ID: 45696
Run Date: 01/04/2021 02:16
Data File: A03JAN21A_2-10
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 09:15
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.03 g

Project: APEX00320
Matrix: SOIL
%Moisture: 44.5
Prep Basis: Dry Weight
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			2490	3500	pg/g	71.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			2460	3500	pg/g	70.4	(26%-138%)
37Cl-2,3,7,8-TCDD			264	350	pg/g	75.4	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0L0698
Lab Sample ID: 17535004
Client Sample: 1613B Soil
Client ID: CB-4
Batch ID: 45696
Run Date: 01/04/2021 03:04
Data File: A03JAN21A_2-11
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 11:00
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.2 g

Project: APEX00320
Matrix: SOIL
%Moisture: 74.5

Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	5.83	pg/g	5.83	32.7
40321-76-4	1,2,3,7,8-PeCDD	JK	19.4	pg/g	5.47	163
39227-28-6	1,2,3,4,7,8-HxCDD	J	22.3	pg/g	6.80	163
57653-85-7	1,2,3,6,7,8-HxCDD	J	61.5	pg/g	6.54	163
19408-74-3	1,2,3,7,8,9-HxCDD	J	45.9	pg/g	6.80	163
35822-46-9	1,2,3,4,6,7,8-HpCDD		1990	pg/g	25.5	163
3268-87-9	1,2,3,4,6,7,8,9-OCDD		20100	pg/g	20.2	327
51207-31-9	2,3,7,8-TCDF	JK	26.9	pg/g	9.02	32.7
57117-41-6	1,2,3,7,8-PeCDF	J	20.3	pg/g	3.50	163
57117-31-4	2,3,4,7,8-PeCDF	J	33.5	pg/g	3.11	163
70648-26-9	1,2,3,4,7,8-HxCDF	J	44.8	pg/g	5.80	163
57117-44-9	1,2,3,6,7,8-HxCDF	J	40.5	pg/g	5.60	163
60851-34-5	2,3,4,6,7,8-HxCDF	JK	39.8	pg/g	5.69	163
72918-21-9	1,2,3,7,8,9-HxCDF	JK	13.5	pg/g	7.97	163
67562-39-4	1,2,3,4,6,7,8-HpCDF		518	pg/g	8.50	163
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	33.9	pg/g	12.5	163
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1160	pg/g	9.02	327
41903-57-5	Total TeCDD	JK	11.0	pg/g	5.83	32.7
36088-22-9	Total PeCDD	JK	111	pg/g	5.47	163
34465-46-8	Total HxCDD	J	539	pg/g	6.54	163
37871-00-4	Total HpCDD		3980	pg/g	25.5	163
30402-14-3	Total TeCDF	JK	348	pg/g	9.02	32.7
30402-15-4	Total PeCDF	JK	365	pg/g	2.03	163
55684-94-1	Total HxCDF	JK	637	pg/g	5.60	163
38998-75-3	Total HpCDF	J	1480	pg/g	8.50	163
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		91.4	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		94.3	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		5090	6540	pg/g	77.8	(25%-164%)
13C-1,2,3,7,8-PeCDD		6180	6540	pg/g	94.5	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		4350	6540	pg/g	66.5	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		4580	6540	pg/g	70.0	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		5320	6540	pg/g	81.4	(23%-140%)
13C-OCDD		10600	13100	pg/g	81.2	(17%-157%)
13C-2,3,7,8-TCDF		4990	6540	pg/g	76.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		6350	6540	pg/g	97.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		6360	6540	pg/g	97.3	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		4380	6540	pg/g	67.0	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		4410	6540	pg/g	67.4	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		4640	6540	pg/g	70.9	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		4710	6540	pg/g	72.0	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 17535004
Client Sample: 1613B Soil
Client ID: CB-4
Batch ID: 45696
Run Date: 01/04/2021 03:04
Data File: A03JAN21A_2-11
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 11:00
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.2 g

Project: APEX00320
Matrix: SOIL
%Moisture: 74.5
Prep Basis: Dry Weight
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			4860	6540	pg/g	74.4	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			5140	6540	pg/g	78.6	(26%-138%)
37Cl-2,3,7,8-TCDD			563	654	pg/g	86.1	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 17535005
Client Sample: 1613B Soil
Client ID: CB-4_DUP
Batch ID: 45696
Run Date: 01/04/2021 03:53
Data File: A03JAN21A_2-12
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 11:05
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.08 g

Project: APEX00320
Matrix: SOIL
%Moisture: 73.3

Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	5.18	pg/g	5.18	34.7
40321-76-4	1,2,3,7,8-PeCDD	J	21.5	pg/g	7.09	174
39227-28-6	1,2,3,4,7,8-HxCDD	JK	25.3	pg/g	6.00	174
57653-85-7	1,2,3,6,7,8-HxCDD	J	70.1	pg/g	5.61	174
19408-74-3	1,2,3,7,8,9-HxCDD	J	53.0	pg/g	5.88	174
35822-46-9	1,2,3,4,6,7,8-HpCDD		1900	pg/g	20.6	174
3268-87-9	1,2,3,4,6,7,8,9-OCDD		18000	pg/g	18.5	347
51207-31-9	2,3,7,8-TCDF		39.9	pg/g	8.54	34.7
57117-41-6	1,2,3,7,8-PeCDF	JK	36.5	pg/g	4.95	174
57117-31-4	2,3,4,7,8-PeCDF	J	67.2	pg/g	4.86	174
70648-26-9	1,2,3,4,7,8-HxCDF	J	69.2	pg/g	5.71	174
57117-44-9	1,2,3,6,7,8-HxCDF	J	62.0	pg/g	5.43	174
60851-34-5	2,3,4,6,7,8-HxCDF	J	60.3	pg/g	5.70	174
72918-21-9	1,2,3,7,8,9-HxCDF	J	20.4	pg/g	8.20	174
67562-39-4	1,2,3,4,6,7,8-HpCDF		570	pg/g	8.34	174
55673-89-7	1,2,3,4,7,8,9-HpCDF	JK	45.3	pg/g	11.8	174
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1030	pg/g	9.66	347
41903-57-5	Total TeCDD	JK	21.4	pg/g	5.18	34.7
36088-22-9	Total PeCDD	JK	131	pg/g	7.09	174
34465-46-8	Total HxCDD	JK	584	pg/g	5.61	174
37871-00-4	Total HpCDD		3660	pg/g	20.6	174
30402-14-3	Total TeCDF	JK	775	pg/g	8.54	34.7
30402-15-4	Total PeCDF	JK	717	pg/g	1.31	174
55684-94-1	Total HxCDF	JK	859	pg/g	5.43	174
38998-75-3	Total HpCDF	JK	1480	pg/g	8.34	174
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		115	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		117	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		5950	6950	pg/g	85.6	(25%-164%)
13C-1,2,3,7,8-PeCDD		7120	6950	pg/g	103	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		5200	6950	pg/g	74.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		5170	6950	pg/g	74.4	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		6300	6950	pg/g	90.8	(23%-140%)
13C-OCDD		12200	13900	pg/g	88.0	(17%-157%)
13C-2,3,7,8-TCDF		5980	6950	pg/g	86.1	(24%-169%)
13C-1,2,3,7,8-PeCDF		7290	6950	pg/g	105	(24%-185%)
13C-2,3,4,7,8-PeCDF		7330	6950	pg/g	105	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		5200	6950	pg/g	74.8	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		5090	6950	pg/g	73.3	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		5300	6950	pg/g	76.3	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		5410	6950	pg/g	77.9	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number:	A0L0698	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17535005	Date Collected:	12/17/2020 11:05	Matrix:	SOIL
Client Sample:	1613B Soil	Date Received:	12/22/2020 13:00	%Moisture:	73.3
Client ID:	CB-4_DUP			Prep Basis:	Dry Weight
Batch ID:	45696	Method:	EPA Method 1613B		
Run Date:	01/04/2021 03:53	Analyst:	MJC	Instrument:	HRP750
Data File:	A03JAN21A_2-12			Dilution:	1
Prep Batch:	45694	Prep Method:	SW846 3540C		
Prep Date:	28-DEC-20	Prep Aliquot:	1.08 g		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			5740	6950	pg/g	82.6	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			6040	6950	pg/g	87.0	(26%-138%)
37Cl-2,3,7,8-TCDD			610	695	pg/g	87.9	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number:	A0L0698	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17535005	Date Collected:	12/17/2020 11:05	Matrix:	SOIL
Client Sample:	1613B Soil	Date Received:	12/22/2020 13:00	%Moisture:	73.3
Client ID:	CB-4_DUP			Prep Basis:	Dry Weight
Batch ID:	45696	Method:	EPA Method 1613B		
Run Date:	01/04/2021 12:24	Analyst:	MJC	Instrument:	HRP757
Data File:	e04jan21a-5			Dilution:	1
Prep Batch:	45694	Prep Method:	SW846 3540C		
Prep Date:	28-DEC-20	Prep Aliquot:	1.08 g		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
51207-31-9	2,3,7,8-TCDF		52.2	pg/g	13.3	34.7

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
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Comments:

J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 17535006
Client Sample: 1613B Soil
Client ID: CB-5
Batch ID: 45696
Run Date: 01/04/2021 04:41
Data File: A03JAN21A_2-13
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 11:35
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.22 g

Project: APEX00320
Matrix: SOIL
%Moisture: 64.5
Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	3.80	pg/g	3.80	23.1
40321-76-4	1,2,3,7,8-PeCDD	JK	20.9	pg/g	3.78	116
39227-28-6	1,2,3,4,7,8-HxCDD	JK	19.0	pg/g	5.41	116
57653-85-7	1,2,3,6,7,8-HxCDD	J	60.9	pg/g	5.45	116
19408-74-3	1,2,3,7,8,9-HxCDD	J	48.2	pg/g	5.50	116
35822-46-9	1,2,3,4,6,7,8-HpCDD		2630	pg/g	19.8	116
3268-87-9	1,2,3,4,6,7,8,9-OCDD		37100	pg/g	18.7	231
51207-31-9	2,3,7,8-TCDF	J	12.7	pg/g	4.99	23.1
57117-41-6	1,2,3,7,8-PeCDF	JK	9.71	pg/g	2.86	116
57117-31-4	2,3,4,7,8-PeCDF	J	13.8	pg/g	2.74	116
70648-26-9	1,2,3,4,7,8-HxCDF	J	24.1	pg/g	3.51	116
57117-44-9	1,2,3,6,7,8-HxCDF	JK	18.5	pg/g	3.58	116
60851-34-5	2,3,4,6,7,8-HxCDF	J	20.8	pg/g	3.48	116
72918-21-9	1,2,3,7,8,9-HxCDF	JK	6.10	pg/g	4.67	116
67562-39-4	1,2,3,4,6,7,8-HpCDF		388	pg/g	7.30	116
55673-89-7	1,2,3,4,7,8,9-HpCDF	J	25.0	pg/g	11.0	116
39001-02-0	1,2,3,4,6,7,8,9-OCDF		794	pg/g	7.63	231
41903-57-5	Total TeCDD	J	16.5	pg/g	3.80	23.1
36088-22-9	Total PeCDD	JK	120	pg/g	3.78	116
34465-46-8	Total HxCDD	JK	529	pg/g	5.41	116
37871-00-4	Total HpCDD		5270	pg/g	19.8	116
30402-14-3	Total TeCDF	JK	93.7	pg/g	4.99	23.1
30402-15-4	Total PeCDF	JK	203	pg/g	0.920	116
55684-94-1	Total HxCDF	JK	528	pg/g	3.48	116
38998-75-3	Total HpCDF	J	1190	pg/g	7.30	116
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		88.2	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		90.1	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		3790	4620	pg/g	82.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		3430	4620	pg/g	74.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		3340	4620	pg/g	72.3	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		3350	4620	pg/g	72.6	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		4260	4620	pg/g	92.1	(23%-140%)
13C-OCDD		8830	9240	pg/g	95.5	(17%-157%)
13C-2,3,7,8-TCDF		3940	4620	pg/g	85.2	(24%-169%)
13C-1,2,3,7,8-PeCDF		3470	4620	pg/g	75.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		3430	4620	pg/g	74.3	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		3260	4620	pg/g	70.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		2950	4620	pg/g	63.7	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		3350	4620	pg/g	72.4	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		3390	4620	pg/g	73.3	(29%-147%)

**Hi-Res Dioxins/Furans
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Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 17535006
Client Sample: 1613B Soil
Client ID: CB-5
Batch ID: 45696
Run Date: 01/04/2021 04:41
Data File: A03JAN21A_2-13
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 11:35
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.22 g

Project: APEX00320
Matrix: SOIL
%Moisture: 64.5
Prep Basis: Dry Weight
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			3800	4620	pg/g	82.2	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			4150	4620	pg/g	89.8	(26%-138%)
37Cl-2,3,7,8-TCDD			348	462	pg/g	75.2	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0L0698
Lab Sample ID: 17535007
Client Sample: 1613B Soil
Client ID: CB-6
Batch ID: 45696
Run Date: 12/31/2020 03:12
Data File: A30DEC20A_2-10
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 13:10
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.25 g

Project: APEX00320
Matrix: SOIL
%Moisture: 62.4
Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	5.91	pg/g	5.91	21.3
40321-76-4	1,2,3,7,8-PeCDD	U	12.5	pg/g	12.5	106
39227-28-6	1,2,3,4,7,8-HxCDD	U	10.2	pg/g	10.2	106
57653-85-7	1,2,3,6,7,8-HxCDD	U	9.95	pg/g	9.95	106
19408-74-3	1,2,3,7,8,9-HxCDD	U	10.2	pg/g	10.2	106
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	57.0	pg/g	13.9	106
3268-87-9	1,2,3,4,6,7,8,9-OCDD		454	pg/g	11.6	213
51207-31-9	2,3,7,8-TCDF	U	7.65	pg/g	7.65	21.3
57117-41-6	1,2,3,7,8-PeCDF	U	7.69	pg/g	7.69	106
57117-31-4	2,3,4,7,8-PeCDF	U	6.93	pg/g	6.93	106
70648-26-9	1,2,3,4,7,8-HxCDF	J	6.25	pg/g	5.57	106
57117-44-9	1,2,3,6,7,8-HxCDF	U	5.57	pg/g	5.57	106
60851-34-5	2,3,4,6,7,8-HxCDF	U	5.95	pg/g	5.95	106
72918-21-9	1,2,3,7,8,9-HxCDF	U	7.18	pg/g	7.18	106
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	18.1	pg/g	7.31	106
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	9.14	pg/g	9.14	106
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	27.9	pg/g	9.69	213
41903-57-5	Total TeCDD	U	5.91	pg/g	5.91	21.3
36088-22-9	Total PeCDD	U	12.5	pg/g	12.5	106
34465-46-8	Total HxCDD	U	9.95	pg/g	9.95	106
37871-00-4	Total HpCDD	J	105	pg/g	13.9	106
30402-14-3	Total TeCDF	U	7.65	pg/g	7.65	21.3
30402-15-4	Total PeCDF	BJK	5.87	pg/g	3.05	106
55684-94-1	Total HxCDF	BJK	15.6	pg/g	5.57	106
38998-75-3	Total HpCDF	JK	51.3	pg/g	7.31	106
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		1.52	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		14.7	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		3090	4250	pg/g	72.6	(25%-164%)
13C-1,2,3,7,8-PeCDD		2530	4250	pg/g	59.6	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		3030	4250	pg/g	71.3	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		2900	4250	pg/g	68.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		4060	4250	pg/g	95.6	(23%-140%)
13C-OCDD		8340	8500	pg/g	98.2	(17%-157%)
13C-2,3,7,8-TCDF		3600	4250	pg/g	84.8	(24%-169%)
13C-1,2,3,7,8-PeCDF		2280	4250	pg/g	53.6	(24%-185%)
13C-2,3,4,7,8-PeCDF		2350	4250	pg/g	55.3	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		2780	4250	pg/g	65.4	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		2560	4250	pg/g	60.3	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		2840	4250	pg/g	66.9	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		3060	4250	pg/g	72.1	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number:	A0L0698	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17535007	Date Collected:	12/17/2020 13:10	Matrix:	SOIL
Client Sample:	1613B Soil	Date Received:	12/22/2020 13:00	%Moisture:	62.4
Client ID:	CB-6			Prep Basis:	Dry Weight
Batch ID:	45696	Method:	EPA Method 1613B		
Run Date:	12/31/2020 03:12	Analyst:	MJC	Instrument:	HRP750
Data File:	A30DEC20A_2-10			Dilution:	1
Prep Batch:	45694	Prep Method:	SW846 3540C		
Prep Date:	28-DEC-20	Prep Aliquot:	1.25 g		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			3330	4250	pg/g	78.3	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			3890	4250	pg/g	91.5	(26%-138%)
37Cl-2,3,7,8-TCDD			335	425	pg/g	78.8	(35%-197%)

Comments:

- B** The target analyte was detected in the associated blank.
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 17535008
Client Sample: 1613B Soil
Client ID: CB-7
Batch ID: 45696
Run Date: 12/31/2020 04:00
Data File: A30DEC20A_2-11
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 12:30
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.04 g

Project: APEX00320
Matrix: SOIL
%Moisture: 65.2
Prep Basis: Dry Weight

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	5.69	pg/g	5.69	27.6
40321-76-4	1,2,3,7,8-PeCDD	U	7.74	pg/g	7.74	138
39227-28-6	1,2,3,4,7,8-HxCDD	U	6.97	pg/g	6.97	138
57653-85-7	1,2,3,6,7,8-HxCDD	U	7.24	pg/g	7.24	138
19408-74-3	1,2,3,7,8,9-HxCDD	U	7.19	pg/g	7.19	138
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	108	pg/g	11.1	138
3268-87-9	1,2,3,4,6,7,8,9-OCDD		820	pg/g	15.2	276
51207-31-9	2,3,7,8-TCDF	U	7.52	pg/g	7.52	27.6
57117-41-6	1,2,3,7,8-PeCDF	U	5.42	pg/g	5.42	138
57117-31-4	2,3,4,7,8-PeCDF	U	5.26	pg/g	5.26	138
70648-26-9	1,2,3,4,7,8-HxCDF	JK	6.30	pg/g	6.25	138
57117-44-9	1,2,3,6,7,8-HxCDF	U	6.47	pg/g	6.47	138
60851-34-5	2,3,4,6,7,8-HxCDF	U	6.74	pg/g	6.74	138
72918-21-9	1,2,3,7,8,9-HxCDF	U	8.84	pg/g	8.84	138
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	28.9	pg/g	6.08	138
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	9.90	pg/g	9.90	138
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	43.3	pg/g	9.51	276
41903-57-5	Total TeCDD	U	5.69	pg/g	5.69	27.6
36088-22-9	Total PeCDD	U	7.74	pg/g	7.74	138
34465-46-8	Total HxCDD	JK	32.3	pg/g	6.97	138
37871-00-4	Total HpCDD	J	218	pg/g	11.1	138
30402-14-3	Total TeCDF	U	7.52	pg/g	7.52	27.6
30402-15-4	Total PeCDF	JK	16.2	pg/g	1.63	138
55684-94-1	Total HxCDF	JK	41.6	pg/g	6.25	138
38998-75-3	Total HpCDF	J	69.3	pg/g	6.08	138
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		2.26	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		12.4	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		4960	5530	pg/g	89.7	(25%-164%)
13C-1,2,3,7,8-PeCDD		6750	5530	pg/g	122	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		4020	5530	pg/g	72.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		3820	5530	pg/g	69.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		4210	5530	pg/g	76.2	(23%-140%)
13C-OCDD		7280	11100	pg/g	65.9	(17%-157%)
13C-2,3,7,8-TCDF		4590	5530	pg/g	83.0	(24%-169%)
13C-1,2,3,7,8-PeCDF		6390	5530	pg/g	116	(24%-185%)
13C-2,3,4,7,8-PeCDF		6480	5530	pg/g	117	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		3800	5530	pg/g	68.8	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		3580	5530	pg/g	64.8	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		3760	5530	pg/g	68.1	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		3950	5530	pg/g	71.4	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 17535008
Client Sample: 1613B Soil
Client ID: CB-7
Batch ID: 45696
Run Date: 12/31/2020 04:00
Data File: A30DEC20A_2-11
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001
Date Collected: 12/17/2020 12:30
Date Received: 12/22/2020 13:00

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 1.04 g

Project: APEX00320
Matrix: SOIL
%Moisture: 65.2
Prep Basis: Dry Weight
Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			3810	5530	pg/g	68.9	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			3750	5530	pg/g	67.9	(26%-138%)
37Cl-2,3,7,8-TCDD			520	553	pg/g	94.2	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

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SDG Number: A0L0698

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
17535007	CB-6	13C-2,3,7,8-TCDD		72.6	(25%-164%)
		13C-1,2,3,7,8-PeCDD		59.6	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		71.3	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		68.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		95.6	(23%-140%)
		13C-OCDD		98.2	(17%-157%)
		13C-2,3,7,8-TCDF		84.8	(24%-169%)
		13C-1,2,3,7,8-PeCDF		53.6	(24%-185%)
		13C-2,3,4,7,8-PeCDF		55.3	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		65.4	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		60.3	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		66.9	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.1	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		78.3	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		91.5	(26%-138%)
		37Cl-2,3,7,8-TCDD		78.8	(35%-197%)
17535008	CB-7	13C-2,3,7,8-TCDD		89.7	(25%-164%)
		13C-1,2,3,7,8-PeCDD		122	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		72.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		69.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		76.2	(23%-140%)
		13C-OCDD		65.9	(17%-157%)
		13C-2,3,7,8-TCDF		83.0	(24%-169%)
		13C-1,2,3,7,8-PeCDF		116	(24%-185%)
		13C-2,3,4,7,8-PeCDF		117	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		68.8	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		64.8	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		68.1	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		71.4	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		68.9	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		67.9	(26%-138%)
		37Cl-2,3,7,8-TCDD		94.2	(35%-197%)
12028284	LCS for batch 45694	13C-2,3,7,8-TCDD		77.2	(20%-175%)
		13C-1,2,3,7,8-PeCDD		82.3	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		66.3	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		73.5	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		66.0	(22%-166%)
		13C-OCDD		56.9	(13%-199%)
		13C-2,3,7,8-TCDF		78.3	(22%-152%)
		13C-1,2,3,7,8-PeCDF		84.6	(21%-192%)
		13C-2,3,4,7,8-PeCDF		85.5	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		69.8	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		73.3	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		72.6	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		72.0	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		65.8	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		66.2	(20%-186%)
		37Cl-2,3,7,8-TCDD		79.5	(31%-191%)
12028285	LCSD for batch 45694	13C-2,3,7,8-TCDD		75.7	(20%-175%)

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

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SDG Number: A0L0698

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12028285	LCSD for batch 45694	13C-1,2,3,7,8-PeCDD		79.5	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		65.2	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		73.0	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		69.1	(22%-166%)
		13C-OCDD		64.2	(13%-199%)
		13C-2,3,7,8-TCDF		75.3	(22%-152%)
		13C-1,2,3,7,8-PeCDF		82.9	(21%-192%)
		13C-2,3,4,7,8-PeCDF		82.2	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		70.5	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		72.1	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		71.1	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		71.7	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		70.1	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		64.6	(20%-186%)
		37Cl-2,3,7,8-TCDD		79.6	(31%-191%)
12028283	MB for batch 45694	13C-2,3,7,8-TCDD		74.7	(25%-164%)
		13C-1,2,3,7,8-PeCDD		75.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		64.7	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		72.9	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		75.4	(23%-140%)
		13C-OCDD		73.6	(17%-157%)
		13C-2,3,7,8-TCDF		76.5	(24%-169%)
		13C-1,2,3,7,8-PeCDF		79.9	(24%-185%)
		13C-2,3,4,7,8-PeCDF		80.6	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		66.7	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		72.1	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		71.2	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.4	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		73.5	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		74.2	(26%-138%)
		37Cl-2,3,7,8-TCDD		82.5	(35%-197%)
17535002	CB-2	13C-2,3,7,8-TCDD		78.7	(25%-164%)
		13C-1,2,3,7,8-PeCDD		97.4	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		69.7	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		71.0	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		82.2	(23%-140%)
		13C-OCDD		80.2	(17%-157%)
		13C-2,3,7,8-TCDF		85.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		97.8	(24%-185%)
		13C-2,3,4,7,8-PeCDF		99.5	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		70.4	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		68.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		71.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		75.2	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		80.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		86.0	(35%-197%)
17535003	CB-3	13C-2,3,7,8-TCDD		70.2	(25%-164%)
		13C-1,2,3,7,8-PeCDD		75.7	(25%-181%)

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

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SDG Number: A0L0698

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
17535003	CB-3	13C-1,2,3,4,7,8-HxCDD		67.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		69.6	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		76.8	(23%-140%)
		13C-OCDD		74.2	(17%-157%)
		13C-2,3,7,8-TCDF		77.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		77.8	(24%-185%)
		13C-2,3,4,7,8-PeCDF		78.4	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		68.8	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		68.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		70.2	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		71.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		71.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		70.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		75.4	(35%-197%)
17535004	CB-4	13C-2,3,7,8-TCDD		77.8	(25%-164%)
		13C-1,2,3,7,8-PeCDD		94.5	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		66.5	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		70.0	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		81.4	(23%-140%)
		13C-OCDD		81.2	(17%-157%)
		13C-2,3,7,8-TCDF		76.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		97.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		97.3	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		67.0	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		67.4	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		70.9	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		74.4	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		78.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		86.1	(35%-197%)
17535005	CB-4_DUP	13C-2,3,7,8-TCDD		85.6	(25%-164%)
		13C-1,2,3,7,8-PeCDD		103	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		74.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		74.4	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		90.8	(23%-140%)
		13C-OCDD		88.0	(17%-157%)
		13C-2,3,7,8-TCDF		86.1	(24%-169%)
		13C-1,2,3,7,8-PeCDF		105	(24%-185%)
		13C-2,3,4,7,8-PeCDF		105	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		74.8	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		73.3	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		76.3	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		77.9	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		82.6	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		87.0	(26%-138%)
		37Cl-2,3,7,8-TCDD		87.9	(35%-197%)
17535006	CB-5	13C-2,3,7,8-TCDD		82.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		74.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		72.3	(32%-141%)

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

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SDG Number: A0L0698

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
17535006	CB-5	13C-1,2,3,6,7,8-HxCDD		72.6	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		92.1	(23%-140%)
		13C-OCDD		95.5	(17%-157%)
		13C-2,3,7,8-TCDF		85.2	(24%-169%)
		13C-1,2,3,7,8-PeCDF		75.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		74.3	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		70.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		63.7	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		72.4	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		73.3	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		82.2	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		89.8	(26%-138%)
		37Cl-2,3,7,8-TCDD		75.2	(35%-197%)
17535001	CB-1	13C-2,3,7,8-TCDD		86.2	(25%-164%)
		13C-1,2,3,7,8-PeCDD		86.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		74.7	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		73.6	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		85.5	(23%-140%)
		13C-OCDD		80.5	(17%-157%)
		13C-2,3,7,8-TCDF		87.4	(24%-169%)
		13C-1,2,3,7,8-PeCDF		95.0	(24%-185%)
		13C-2,3,4,7,8-PeCDF		93.7	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		77.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		77.7	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		77.8	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		80.7	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		83.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		87.9	(26%-138%)
		37Cl-2,3,7,8-TCDD		85.0	(35%-197%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: A0L0698

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 45694

Matrix: SOIL

Lab Sample ID: 12028284

Instrument: HRP750

Analysis Date: 01/03/2021 19:02

Dilution: 1

Analyst: MJC

Prep Batch ID: 45694

Batch ID: 45696

CAS No.	Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	20.0	17.3	86.3	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	100	99.2	99.2	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	100	97.1	97.1	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	100	97.0	97	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	100	97.9	97.9	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	100	91.2	91.2	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	200	182	91.1	78-144
51207-31-9	LCS 2,3,7,8-TCDF	20.0	17.6	87.8	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	100	91.3	91.3	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	100	95.3	95.3	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	100	92.3	92.3	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	100	93.4	93.4	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	100	88.9	88.9	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	100	94.1	94.1	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	100	88.8	88.8	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	100	90.4	90.4	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	200	185	92.6	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 2 of 2

SDG Number: A0L0698

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 45694

Matrix: SOIL

Lab Sample ID: 12028285

Instrument: HRP750

Analysis Date: 01/03/2021 19:50

Dilution: 1

Analyst: MJC

Prep Batch ID: 45694

Batch ID: 45696

CAS No.	Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	20.0	17.6	88.2	67-158	2.21	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	100	101	101	70-142	1.40	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	100	102	102	70-164	4.70	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	100	94.5	94.5	76-134	2.61	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	100	99.9	99.9	64-162	2.08	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	100	92.8	92.8	70-140	1.80	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	200	191	95.5	78-144	4.65	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	20.0	18.7	93.3	75-158	6.14	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	100	93.7	93.7	80-134	2.55	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	100	99.9	99.9	68-160	4.70	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	100	92.9	92.9	72-134	0.618	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	100	95.8	95.8	84-130	2.51	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	100	95.1	95.1	70-156	6.69	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	100	94.0	94	78-130	0.136	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	100	92.9	92.9	82-122	4.58	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	100	91.0	91	78-138	0.684	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	200	197	98.4	63-170	6.06	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A0L0698
Client ID: MB for batch 45694
Lab Sample ID: 12028283
Column:

Client: APEX001
Instrument ID: HRP750
Prep Date: 28-DEC-20

Matrix: SOIL
Data File: A03JAN21A_2-3
Analyzed: 01/03/21 20:38

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 CB-6	17535007	A30DEC20A_2-10	12/31/20	0312
02 CB-7	17535008	A30DEC20A_2-11	12/31/20	0400
03 LCS for batch 45694	12028284	A03JAN21A_2-1	01/03/21	1902
04 LCSD for batch 45694	12028285	A03JAN21A_2-2	01/03/21	1950
05 CB-2	17535002	A03JAN21A_2-9	01/04/21	0128
06 CB-3	17535003	A03JAN21A_2-10	01/04/21	0216
07 CB-4	17535004	A03JAN21A_2-11	01/04/21	0304
08 CB-4_DUP	17535005	A03JAN21A_2-12	01/04/21	0353
09 CB-5	17535006	A03JAN21A_2-13	01/04/21	0441
10 CB-4_DUP	17535005	e04jan21a-5	01/04/21	1224
11 CB-1	17535001	A06JAN21A_2-5	01/06/21	1752

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A0L0698
Lab Sample ID: 12028283
Client Sample: QC for batch 45694
Client ID: MB for batch 45694
Batch ID: 45696
Run Date: 01/03/2021 20:38
Data File: A03JAN21A_2-3
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 10 g

Project: APEX00320
Matrix: SOIL

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.242	pg/g	0.242	1.00
40321-76-4	1,2,3,7,8-PeCDD	JK	0.368	pg/g	0.200	5.00
39227-28-6	1,2,3,4,7,8-HxCDD	JK	0.312	pg/g	0.228	5.00
57653-85-7	1,2,3,6,7,8-HxCDD	JK	0.360	pg/g	0.224	5.00
19408-74-3	1,2,3,7,8,9-HxCDD	JK	0.394	pg/g	0.228	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD	JK	0.490	pg/g	0.384	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD	J	1.53	pg/g	0.406	10.0
51207-31-9	2,3,7,8-TCDF	U	0.246	pg/g	0.246	1.00
57117-41-6	1,2,3,7,8-PeCDF	J	0.400	pg/g	0.167	5.00
57117-31-4	2,3,4,7,8-PeCDF	JK	0.324	pg/g	0.163	5.00
70648-26-9	1,2,3,4,7,8-HxCDF	J	0.480	pg/g	0.135	5.00
57117-44-9	1,2,3,6,7,8-HxCDF	JK	0.328	pg/g	0.133	5.00
60851-34-5	2,3,4,6,7,8-HxCDF	J	0.314	pg/g	0.139	5.00
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.378	pg/g	0.192	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	0.578	pg/g	0.153	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF	JK	0.338	pg/g	0.242	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	0.734	pg/g	0.286	10.0
41903-57-5	Total TeCDD	U	0.242	pg/g	0.242	1.00
36088-22-9	Total PeCDD	JK	0.368	pg/g	0.200	5.00
34465-46-8	Total HxCDD	JK	1.07	pg/g	0.224	5.00
37871-00-4	Total HpCDD	JK	0.490	pg/g	0.384	5.00
30402-14-3	Total TeCDF	U	0.246	pg/g	0.246	1.00
30402-15-4	Total PeCDF	JK	0.934	pg/g	0.0922	5.00
55684-94-1	Total HxCDF	JK	1.69	pg/g	0.133	5.00
38998-75-3	Total HpCDF	JK	0.916	pg/g	0.153	5.00
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.749	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		0.882	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		149	200	pg/g	74.7	(25%-164%)
13C-1,2,3,7,8-PeCDD		151	200	pg/g	75.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		129	200	pg/g	64.7	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		146	200	pg/g	72.9	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		151	200	pg/g	75.4	(23%-140%)
13C-OCDD		294	400	pg/g	73.6	(17%-157%)
13C-2,3,7,8-TCDF		153	200	pg/g	76.5	(24%-169%)
13C-1,2,3,7,8-PeCDF		160	200	pg/g	79.9	(24%-185%)
13C-2,3,4,7,8-PeCDF		161	200	pg/g	80.6	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		133	200	pg/g	66.7	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		144	200	pg/g	72.1	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		142	200	pg/g	71.2	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		145	200	pg/g	72.4	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number:	A0L0698	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12028283			Matrix:	SOIL
Client Sample:	QC for batch 45694				
Client ID:	MB for batch 45694			Prep Basis:	As Received
Batch ID:	45696	Method:	EPA Method 1613B		
Run Date:	01/03/2021 20:38	Analyst:	MJC	Instrument:	HRP750
Data File:	A03JAN21A_2-3			Dilution:	1
Prep Batch:	45694	Prep Method:	SW846 3540C		
Prep Date:	28-DEC-20	Prep Aliquot:	10 g		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			147	200	pg/g	73.5	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			148	200	pg/g	74.2	(26%-138%)
37Cl-2,3,7,8-TCDD			16.5	20.0	pg/g	82.5	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number: A0L0698
Lab Sample ID: 12028284
Client Sample: QC for batch 45694
Client ID: LCS for batch 45694
Batch ID: 45696
Run Date: 01/03/2021 19:02
Data File: A03JAN21A_2-1
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 10 g

Project: APEX00320
Matrix: SOIL

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		17.3	pg/g	0.294	1.00
40321-76-4	1,2,3,7,8-PeCDD		99.2	pg/g	0.468	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		97.1	pg/g	0.740	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		97.0	pg/g	0.712	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		97.9	pg/g	0.736	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		91.2	pg/g	1.46	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		182	pg/g	1.28	10.0
51207-31-9	2,3,7,8-TCDF		17.6	pg/g	0.332	1.00
57117-41-6	1,2,3,7,8-PeCDF		91.3	pg/g	0.466	5.00
57117-31-4	2,3,4,7,8-PeCDF		95.3	pg/g	0.428	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		92.3	pg/g	0.784	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		93.4	pg/g	0.720	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		88.9	pg/g	0.794	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		94.1	pg/g	1.17	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		88.8	pg/g	1.12	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		90.4	pg/g	1.67	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		185	pg/g	1.56	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		154	200	pg/g	77.2	(20%-175%)
13C-1,2,3,7,8-PeCDD		165	200	pg/g	82.3	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		133	200	pg/g	66.3	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		147	200	pg/g	73.5	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		132	200	pg/g	66.0	(22%-166%)
13C-OCDD		227	400	pg/g	56.9	(13%-199%)
13C-2,3,7,8-TCDF		157	200	pg/g	78.3	(22%-152%)
13C-1,2,3,7,8-PeCDF		169	200	pg/g	84.6	(21%-192%)
13C-2,3,4,7,8-PeCDF		171	200	pg/g	85.5	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		140	200	pg/g	69.8	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		147	200	pg/g	73.3	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		145	200	pg/g	72.6	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		144	200	pg/g	72.0	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		132	200	pg/g	65.8	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		132	200	pg/g	66.2	(20%-186%)
37Cl-2,3,7,8-TCDD		15.9	20.0	pg/g	79.5	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number: A0L0698
Lab Sample ID: 12028285
Client Sample: QC for batch 45694
Client ID: LCSD for batch 45694
Batch ID: 45696
Run Date: 01/03/2021 19:50
Data File: A03JAN21A_2-2
Prep Batch: 45694
Prep Date: 28-DEC-20

Client: APEX001

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3540C
Prep Aliquot: 10 g

Project: APEX00320
Matrix: SOIL

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		17.6	pg/g	0.342	1.00
40321-76-4	1,2,3,7,8-PeCDD		101	pg/g	0.368	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		102	pg/g	0.472	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		94.5	pg/g	0.480	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		99.9	pg/g	0.482	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		92.8	pg/g	1.41	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		191	pg/g	1.23	10.0
51207-31-9	2,3,7,8-TCDF		18.7	pg/g	0.326	1.00
57117-41-6	1,2,3,7,8-PeCDF		93.7	pg/g	0.566	5.00
57117-31-4	2,3,4,7,8-PeCDF		99.9	pg/g	0.550	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		92.9	pg/g	0.666	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		95.8	pg/g	0.664	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		95.1	pg/g	0.686	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		94.0	pg/g	1.07	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		92.9	pg/g	0.950	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		91.0	pg/g	1.64	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		197	pg/g	1.19	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		151	200	pg/g	75.7	(20%-175%)
13C-1,2,3,7,8-PeCDD		159	200	pg/g	79.5	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		130	200	pg/g	65.2	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		146	200	pg/g	73.0	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		138	200	pg/g	69.1	(22%-166%)
13C-OCDD		257	400	pg/g	64.2	(13%-199%)
13C-2,3,7,8-TCDF		151	200	pg/g	75.3	(22%-152%)
13C-1,2,3,7,8-PeCDF		166	200	pg/g	82.9	(21%-192%)
13C-2,3,4,7,8-PeCDF		164	200	pg/g	82.2	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		141	200	pg/g	70.5	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		144	200	pg/g	72.1	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		142	200	pg/g	71.1	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		143	200	pg/g	71.7	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		140	200	pg/g	70.1	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		129	200	pg/g	64.6	(20%-186%)
37Cl-2,3,7,8-TCDD		15.9	20.0	pg/g	79.6	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-46895-1
Client Project/Site: A0L0698

For:

Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Philip Nerenberg



Authorized for release by:
1/6/2021 5:36:32 PM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Job ID: 570-46895-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative 570-46895-1

Comments

No additional comments.

Receipt

The samples were received on 12/22/2020 12:10 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

GC/MS Semi VOA

Method Organotins SIM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-118921 and analytical batch 570-119430 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8151A: The continuing calibration verification (CCV) associated with batch 570-120336 recovered above the upper control limit for 2,4-D, 2,4-DB, MCPA, MCPP and Dalapon. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8151A: The matrix spike/matrix spike duplicate (MS/MSD) for preparation batch 570-118615 and analytical batch 570-119335 exceeded control limits for the following analyte: Dinoseb, Note that this analyte is a known poor performer when analyzed using this method.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Client Sample ID: CB-1

Lab Sample ID: 570-46895-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tributyltin	23		8.9	4.4	ug/Kg	1	✱	Organotins SIM	Total/NA
Dibutyltin	29		8.9	2.2	ug/Kg	1	✱	Organotins SIM	Total/NA

Client Sample ID: CB-2

Lab Sample ID: 570-46895-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	9.7		4.1	1.0	ug/Kg	1	✱	Organotins SIM	Total/NA
2,4,5-TP (Silvex)	15		15	5.3	ug/Kg	1	✱	8151A	Total/NA

Client Sample ID: CB-3

Lab Sample ID: 570-46895-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,5-TP (Silvex)	9.4	J p	17	6.3	ug/Kg	1	✱	8151A	Total/NA

Client Sample ID: CB-4

Lab Sample ID: 570-46895-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,5-TP (Silvex)	24	J	34	12	ug/Kg	1	✱	8151A	Total/NA

Client Sample ID: CB-4_DUP

Lab Sample ID: 570-46895-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4,5-TP (Silvex)	25	J	36	13	ug/Kg	1	✱	8151A	Total/NA

Client Sample ID: CB-5

Lab Sample ID: 570-46895-6

No Detections.

Client Sample ID: CB-6

Lab Sample ID: 570-46895-7

No Detections.

Client Sample ID: CB-7

Lab Sample ID: 570-46895-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Client Sample ID: CB-1

Date Collected: 12/17/20 10:10

Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-1

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		8.9	2.2	ug/Kg	✱	12/28/20 11:35	12/30/20 17:53	1
Tributyltin	23		8.9	4.4	ug/Kg	✱	12/28/20 11:35	12/30/20 17:53	1
Dibutyltin	29		8.9	2.2	ug/Kg	✱	12/28/20 11:35	12/30/20 17:53	1
Monobutyltin	ND		8.9	4.1	ug/Kg	✱	12/28/20 11:35	12/30/20 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	47		27 - 135				12/28/20 11:35	12/30/20 17:53	1

Client Sample ID: CB-2

Date Collected: 12/17/20 08:50

Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-2

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		4.1	1.0	ug/Kg	✱	12/28/20 11:35	12/30/20 18:11	1
Tributyltin	ND		4.1	2.0	ug/Kg	✱	12/28/20 11:35	12/30/20 18:11	1
Dibutyltin	9.7		4.1	1.0	ug/Kg	✱	12/28/20 11:35	12/30/20 18:11	1
Monobutyltin	ND		4.1	1.9	ug/Kg	✱	12/28/20 11:35	12/30/20 18:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	76		27 - 135				12/28/20 11:35	12/30/20 18:11	1

Client Sample ID: CB-3

Date Collected: 12/17/20 09:15

Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-3

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		5.0	1.2	ug/Kg	✱	12/28/20 11:35	12/30/20 18:29	1
Tributyltin	ND		5.0	2.5	ug/Kg	✱	12/28/20 11:35	12/30/20 18:29	1
Dibutyltin	ND		5.0	1.2	ug/Kg	✱	12/28/20 11:35	12/30/20 18:29	1
Monobutyltin	ND		5.0	2.3	ug/Kg	✱	12/28/20 11:35	12/30/20 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	34		27 - 135				12/28/20 11:35	12/30/20 18:29	1

Client Sample ID: CB-4

Date Collected: 12/17/20 11:00

Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-4

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		10	2.5	ug/Kg	✱	12/28/20 11:35	12/30/20 18:46	1
Tributyltin	ND		10	5.0	ug/Kg	✱	12/28/20 11:35	12/30/20 18:46	1
Dibutyltin	ND		10	2.5	ug/Kg	✱	12/28/20 11:35	12/30/20 18:46	1
Monobutyltin	ND		10	4.7	ug/Kg	✱	12/28/20 11:35	12/30/20 18:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	37		27 - 135				12/28/20 11:35	12/30/20 18:46	1

Client Sample ID: CB-4_DUP

Date Collected: 12/17/20 11:05

Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-5

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		11	2.8	ug/Kg	✱	12/28/20 11:35	12/30/20 19:03	1
Tributyltin	ND		11	5.5	ug/Kg	✱	12/28/20 11:35	12/30/20 19:03	1
Dibutyltin	ND		11	2.7	ug/Kg	✱	12/28/20 11:35	12/30/20 19:03	1

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: Organotins SIM - Organotins (GC/MS SIM) (Continued)

Client Sample ID: CB-4_DUP
Date Collected: 12/17/20 11:05
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monobutyltin	ND		11	5.1	ug/Kg	☆	12/28/20 11:35	12/30/20 19:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	39		27 - 135				12/28/20 11:35	12/30/20 19:03	1

Client Sample ID: CB-5
Date Collected: 12/17/20 11:35
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		9.0	2.2	ug/Kg	☆	12/28/20 11:35	12/30/20 19:20	1
Tributyltin	ND		9.0	4.5	ug/Kg	☆	12/28/20 11:35	12/30/20 19:20	1
Dibutyltin	ND		9.0	2.2	ug/Kg	☆	12/28/20 11:35	12/30/20 19:20	1
Monobutyltin	ND		9.0	4.2	ug/Kg	☆	12/28/20 11:35	12/30/20 19:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	68		27 - 135				12/28/20 11:35	12/30/20 19:20	1

Client Sample ID: CB-6
Date Collected: 12/17/20 13:10
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		8.7	2.2	ug/Kg	☆	12/28/20 11:35	12/30/20 19:37	1
Tributyltin	ND		8.7	4.3	ug/Kg	☆	12/28/20 11:35	12/30/20 19:37	1
Dibutyltin	ND		8.7	2.1	ug/Kg	☆	12/28/20 11:35	12/30/20 19:37	1
Monobutyltin	ND		8.7	4.0	ug/Kg	☆	12/28/20 11:35	12/30/20 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	49		27 - 135				12/28/20 11:35	12/30/20 19:37	1

Client Sample ID: CB-7
Date Collected: 12/17/20 12:30
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		7.4	1.8	ug/Kg	☆	12/28/20 11:35	01/04/21 14:09	1
Tributyltin	ND		7.4	3.7	ug/Kg	☆	12/28/20 11:35	01/04/21 14:09	1
Dibutyltin	ND		7.4	1.8	ug/Kg	☆	12/28/20 11:35	01/04/21 14:09	1
Monobutyltin	ND		7.4	3.4	ug/Kg	☆	12/28/20 11:35	01/04/21 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	70		27 - 135				12/28/20 11:35	01/04/21 14:09	1

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: 8151A - Herbicides (GC)

Client Sample ID: CB-1
Date Collected: 12/17/20 10:10
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		31	12	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
2,4,5-TP (Silvex)	ND		31	11	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
2,4-D	ND		310	150	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
2,4-DB	ND		310	150	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
Dalapon	ND		780	230	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
Dicamba	ND		31	15	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
Dichlorprop	ND		310	150	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
Dinoseb	ND		310	60	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
MCPA	ND		62000	33000	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
MCP	ND		31000	21000	ug/Kg	☆	12/23/20 18:53	01/05/21 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	74		21 - 161				12/23/20 18:53	01/05/21 17:38	1

Client Sample ID: CB-2
Date Collected: 12/17/20 08:50
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		15	5.4	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
2,4,5-TP (Silvex)	15		15	5.3	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
2,4-D	ND		150	71	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
2,4-DB	ND		150	68	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
Dalapon	ND		370	110	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
Dicamba	ND		15	6.9	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
Dichlorprop	ND		150	72	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
Dinoseb	ND		150	28	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
MCPA	ND		29000	15000	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
MCP	ND		15000	9700	ug/Kg	☆	12/23/20 18:53	01/05/21 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		21 - 161				12/23/20 18:53	01/05/21 18:01	1

Client Sample ID: CB-3
Date Collected: 12/17/20 09:15
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		17	6.4	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
2,4,5-TP (Silvex)	9.4	J p	17	6.3	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
2,4-D	ND		170	84	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
2,4-DB	ND		170	81	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
Dalapon	ND		430	130	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
Dicamba	ND		17	8.2	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
Dichlorprop	ND		170	85	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
Dinoseb	ND		170	33	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
MCPA	ND		35000	18000	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
MCP	ND		17000	11000	ug/Kg	☆	12/23/20 18:53	01/05/21 18:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	60		21 - 161				12/23/20 18:53	01/05/21 18:24	1

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: 8151A - Herbicides (GC)

Client Sample ID: CB-4
Date Collected: 12/17/20 11:00
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		34	13	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
2,4,5-TP (Silvex)	24	J	34	12	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
2,4-D	ND		340	170	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
2,4-DB	ND		340	160	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
Dalapon	ND		860	250	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
Dicamba	ND		34	16	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
Dichlorprop	ND		340	170	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
Dinoseb	ND		340	66	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
MCPA	ND		69000	36000	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
MCP	ND		34000	23000	ug/Kg	✱	12/23/20 18:53	01/05/21 18:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	66		21 - 161				12/23/20 18:53	01/05/21 18:47	1

Client Sample ID: CB-4_DUP
Date Collected: 12/17/20 11:05
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		36	13	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
2,4,5-TP (Silvex)	25	J	36	13	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
2,4-D	ND		360	180	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
2,4-DB	ND		360	170	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
Dalapon	ND		910	260	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
Dicamba	ND		36	17	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
Dichlorprop	ND		360	180	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
Dinoseb	ND		360	70	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
MCPA	ND		73000	38000	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
MCP	ND		36000	24000	ug/Kg	✱	12/23/20 18:53	01/05/21 19:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	68		21 - 161				12/23/20 18:53	01/05/21 19:10	1

Client Sample ID: CB-5
Date Collected: 12/17/20 11:35
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		31	12	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
2,4,5-TP (Silvex)	ND		31	11	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
2,4-D	ND		310	150	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
2,4-DB	ND		310	150	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
Dalapon	ND		790	230	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
Dicamba	ND		31	15	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
Dichlorprop	ND		310	150	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
Dinoseb	ND		310	60	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
MCPA	ND		63000	33000	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
MCP	ND		31000	21000	ug/Kg	✱	12/23/20 18:53	01/05/21 19:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	53		21 - 161				12/23/20 18:53	01/05/21 19:33	1

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: 8151A - Herbicides (GC)

Client Sample ID: CB-6
Date Collected: 12/17/20 13:10
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		31	12	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
2,4,5-TP (Silvex)	ND		31	11	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
2,4-D	ND		310	150	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
2,4-DB	ND		310	150	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
Dalapon	ND		780	230	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
Dicamba	ND		31	15	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
Dichlorprop	ND		310	150	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
Dinoseb	ND		310	60	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
MCPA	ND		62000	33000	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1
MCPP	ND		31000	21000	ug/Kg	✱	12/23/20 18:53	01/05/21 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	80		21 - 161	12/23/20 18:53	01/05/21 19:56	1

Client Sample ID: CB-7
Date Collected: 12/17/20 12:30
Date Received: 12/22/20 12:10

Lab Sample ID: 570-46895-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		25	9.2	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
2,4,5-TP (Silvex)	ND		25	9.1	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
2,4-D	ND		250	120	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
2,4-DB	ND		250	120	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
Dalapon	ND		620	180	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
Dicamba	ND		25	12	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
Dichlorprop	ND		250	120	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
Dinoseb	ND		250	48	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
MCPA	ND		50000	26000	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1
MCPP	ND		25000	16000	ug/Kg	✱	12/23/20 18:53	01/05/21 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	108		21 - 161	12/23/20 18:53	01/05/21 20:18	1

Surrogate Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (27-135)
570-46895-1	CB-1	47
570-46895-2	CB-2	76
570-46895-3	CB-3	34
570-46895-4	CB-4	37
570-46895-5	CB-4_DUP	39
570-46895-6	CB-5	68
570-46895-7	CB-6	49
570-46895-8	CB-7	70
660-106910-A-1-A MS	Matrix Spike	29
660-106910-A-1-B MSD	Matrix Spike Duplicate	30
LCS 570-118921/2-A	Lab Control Sample	49
LCSD 570-118921/3-A	Lab Control Sample Dup	46
MB 570-118921/1-A	Method Blank	56

Surrogate Legend

TPTT = Triphenyltin

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (21-161)
570-46680-D-7-B MS	Matrix Spike	22
570-46680-D-7-C MSD	Matrix Spike Duplicate	23
570-46895-1	CB-1	74
570-46895-2	CB-2	77
570-46895-3	CB-3	60
570-46895-4	CB-4	66
570-46895-5	CB-4_DUP	68
570-46895-6	CB-5	53
570-46895-7	CB-6	80
570-46895-8	CB-7	108
LCS 570-118615/2-A	Lab Control Sample	62
LCSD 570-118615/3-A	Lab Control Sample Dup	63
MB 570-118615/1-A	Method Blank	36

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-118921/1-A

Matrix: Solid

Analysis Batch: 119430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 118921

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	0.74	ug/Kg		12/28/20 11:35	12/30/20 12:39	1
Tributyltin	ND		3.0	1.5	ug/Kg		12/28/20 11:35	12/30/20 12:39	1
Dibutyltin	ND		3.0	0.73	ug/Kg		12/28/20 11:35	12/30/20 12:39	1
Monobutyltin	ND		3.0	1.4	ug/Kg		12/28/20 11:35	12/30/20 12:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	56		27 - 135	12/28/20 11:35	12/30/20 12:39	1

Lab Sample ID: LCS 570-118921/2-A

Matrix: Solid

Analysis Batch: 119430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 118921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrabutyltin	100	73.07		ug/Kg		73	40 - 142
Tributyltin	100	55.20		ug/Kg		55	33 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tripentyltin	49		27 - 135

Lab Sample ID: LCSD 570-118921/3-A

Matrix: Solid

Analysis Batch: 119430

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 118921

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrabutyltin	100	64.19		ug/Kg		64	40 - 142	13	20
Tributyltin	100	49.50		ug/Kg		49	33 - 147	11	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tripentyltin	46		27 - 135

Lab Sample ID: 660-106910-A-1-A MS

Matrix: Solid

Analysis Batch: 119430

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 118921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrabutyltin	ND	F1	99.5	28.15	F1	ug/Kg		28	33 - 129
Tributyltin	1.5	J F1	99.5	26.01	F1	ug/Kg		26	34 - 142

Surrogate	MS %Recovery	MS Qualifier	Limits
Tripentyltin	29		27 - 135

Lab Sample ID: 660-106910-A-1-B MSD

Matrix: Solid

Analysis Batch: 119430

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 118921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrabutyltin	ND	F1	99.0	36.85		ug/Kg		37	33 - 129	27	36

Eurofins Calscience LLC

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: Organotins SIM - Organotins (GC/MS SIM) (Continued)

Lab Sample ID: 660-106910-A-1-B MSD

Matrix: Solid

Analysis Batch: 119430

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 118921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tributyltin	1.5	J F1	99.0	28.62	F1	ug/Kg		29	34 - 142	10	50
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Triphenyltin	30		27 - 135								

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 570-118615/1-A

Matrix: Solid

Analysis Batch: 119335

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 118615

MB MB							Prep Batch: 110000		
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		9.9	3.7	ug/Kg		12/23/20 18:52	12/29/20 22:02	
2,4,5-TP (Silvex)	ND		9.9	3.6	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
2,4-D	ND		99	48	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
2,4-DB	ND		99	46	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
Dalapon	ND		250	72	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
Dicamba	ND		9.9	4.7	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
Dichlorprop	ND		99	49	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
Dinoseb	ND		99	19	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
MCPA	ND		20000	10000	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
MCPP	ND		9900	6500	ug/Kg		12/23/20 18:52	12/29/20 22:02	1
MB MB									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	36		21 - 161				12/23/20 18:52	12/29/20 22:02	

Lab Sample ID: LCS 570-118615/2-A

Matrix: Solid

Analysis Batch: 119335

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 118615

Analyte Data: 1/10/20				Top Data: 1/10/20							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,4,5-T			40.1	40.88		ug/Kg		102	20 - 153		
2,4-D			401	321.1		ug/Kg		80	20 - 153		
2,4-DB			401	392.6		ug/Kg		98	20 - 180		
									</		

Lab Sample ID: LCSD 570-118615/3-A

Matrix: Solid

Analysis Batch: 119335

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 118615

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	38.6	50.29		ug/Kg		130	20 - 153	21	30
2,4-D	386	333.9		ug/Kg		86	20 - 153	4	30
2,4-DB	386	390.8		ug/Kg		101	20 - 180	0	30

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QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 570-118615/3-A

Matrix: Solid

Analysis Batch: 119335

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 118615

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
2,4-Dichlorophenylacetic acid	63		21 - 161

Lab Sample ID: 570-46680-D-7-B MS

Matrix: Solid

Analysis Batch: 119335

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 118615

	Sample	Sample	Spike	MS	MS					
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,4,5-T	ND		40.5	29.42		ug/Kg		73	20 - 168	
2,4-D	ND		405	211.8		ug/Kg		52	20 - 149	
2,4-DB	ND	F1	405	71.91	J F1	ug/Kg		18	20 - 180	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
2,4-Dichlorophenylacetic acid	22		21 - 161							

Lab Sample ID: 570-46680-D-7-C MSD

Matrix: Solid

Analysis Batch: 119335

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 118615

	Sample	Sample	Spike	MSD	MSD							
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
2,4,5-T	ND		41.0	28.49		ug/Kg		70	20 - 168	3	40	
2,4-D	ND		410	267.3		ug/Kg		65	20 - 149	23	38	
2,4-DB	ND	F1	410	76.50	J F1	ug/Kg		19	20 - 180	6	40	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
2,4-Dichlorophenylacetic acid	23		21 - 161									

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

GC/MS Semi VOA

Prep Batch: 118921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-46895-1	CB-1	Total/NA	Solid	Organotin Prep	
570-46895-2	CB-2	Total/NA	Solid	Organotin Prep	
570-46895-3	CB-3	Total/NA	Solid	Organotin Prep	
570-46895-4	CB-4	Total/NA	Solid	Organotin Prep	
570-46895-5	CB-4_DUP	Total/NA	Solid	Organotin Prep	
570-46895-6	CB-5	Total/NA	Solid	Organotin Prep	
570-46895-7	CB-6	Total/NA	Solid	Organotin Prep	
570-46895-8	CB-7	Total/NA	Solid	Organotin Prep	
MB 570-118921/1-A	Method Blank	Total/NA	Solid	Organotin Prep	
LCS 570-118921/2-A	Lab Control Sample	Total/NA	Solid	Organotin Prep	
LCSD 570-118921/3-A	Lab Control Sample Dup	Total/NA	Solid	Organotin Prep	
660-106910-A-1-A MS	Matrix Spike	Total/NA	Solid	Organotin Prep	
660-106910-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	Organotin Prep	

Analysis Batch: 119430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-46895-1	CB-1	Total/NA	Solid	Organotins SIM	118921
570-46895-2	CB-2	Total/NA	Solid	Organotins SIM	118921
570-46895-3	CB-3	Total/NA	Solid	Organotins SIM	118921
570-46895-4	CB-4	Total/NA	Solid	Organotins SIM	118921
570-46895-5	CB-4_DUP	Total/NA	Solid	Organotins SIM	118921
570-46895-6	CB-5	Total/NA	Solid	Organotins SIM	118921
570-46895-7	CB-6	Total/NA	Solid	Organotins SIM	118921
MB 570-118921/1-A	Method Blank	Total/NA	Solid	Organotins SIM	118921
LCS 570-118921/2-A	Lab Control Sample	Total/NA	Solid	Organotins SIM	118921
LCSD 570-118921/3-A	Lab Control Sample Dup	Total/NA	Solid	Organotins SIM	118921
660-106910-A-1-A MS	Matrix Spike	Total/NA	Solid	Organotins SIM	118921
660-106910-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	Organotins SIM	118921

Analysis Batch: 120060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-46895-8	CB-7	Total/NA	Solid	Organotins SIM	118921

GC Semi VOA

Prep Batch: 118615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-46895-1	CB-1	Total/NA	Solid	8151A	
570-46895-2	CB-2	Total/NA	Solid	8151A	
570-46895-3	CB-3	Total/NA	Solid	8151A	
570-46895-4	CB-4	Total/NA	Solid	8151A	
570-46895-5	CB-4_DUP	Total/NA	Solid	8151A	
570-46895-6	CB-5	Total/NA	Solid	8151A	
570-46895-7	CB-6	Total/NA	Solid	8151A	
570-46895-8	CB-7	Total/NA	Solid	8151A	
MB 570-118615/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 570-118615/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 570-118615/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	
570-46680-D-7-B MS	Matrix Spike	Total/NA	Solid	8151A	
570-46680-D-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	

Eurofins Calscience LLC

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

GC Semi VOA

Analysis Batch: 119335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-118615/1-A	Method Blank	Total/NA	Solid	8151A	118615
LCS 570-118615/2-A	Lab Control Sample	Total/NA	Solid	8151A	118615
LCSD 570-118615/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	118615
570-46680-D-7-B MS	Matrix Spike	Total/NA	Solid	8151A	118615
570-46680-D-7-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8151A	118615

Analysis Batch: 120336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-46895-1	CB-1	Total/NA	Solid	8151A	118615
570-46895-2	CB-2	Total/NA	Solid	8151A	118615
570-46895-3	CB-3	Total/NA	Solid	8151A	118615
570-46895-4	CB-4	Total/NA	Solid	8151A	118615
570-46895-5	CB-4_DUP	Total/NA	Solid	8151A	118615
570-46895-6	CB-5	Total/NA	Solid	8151A	118615
570-46895-7	CB-6	Total/NA	Solid	8151A	118615
570-46895-8	CB-7	Total/NA	Solid	8151A	118615

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Client Sample ID: CB-1

Lab Sample ID: 570-46895-1

Date Collected: 12/17/20 10:10

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.2 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 17:53	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			48.8 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 17:38	J7WE	ECL 1
Instrument ID: GC40										

Client Sample ID: CB-2

Lab Sample ID: 570-46895-2

Date Collected: 12/17/20 08:50

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.1 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 18:11	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			47.5 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 18:01	J7WE	ECL 1
Instrument ID: GC40										

Client Sample ID: CB-3

Lab Sample ID: 570-46895-3

Date Collected: 12/17/20 09:15

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.2 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 18:29	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			49.2 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 18:24	J7WE	ECL 1
Instrument ID: GC40										

Client Sample ID: CB-4

Lab Sample ID: 570-46895-4

Date Collected: 12/17/20 11:00

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.06 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 18:46	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			49.7 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 18:47	J7WE	ECL 1
Instrument ID: GC40										

Eurofins Calscience LLC

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Client Sample ID: CB-4_DUP

Lab Sample ID: 570-46895-5

Date Collected: 12/17/20 11:05

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.15 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 19:03	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			51.8 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 19:10	J7WE	ECL 1
Instrument ID: GC40										

Client Sample ID: CB-5

Lab Sample ID: 570-46895-6

Date Collected: 12/17/20 11:35

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.24 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 19:20	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			49.1 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 19:33	J7WE	ECL 1
Instrument ID: GC40										

Client Sample ID: CB-6

Lab Sample ID: 570-46895-7

Date Collected: 12/17/20 13:10

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.30 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			119430	12/30/20 19:37	N8CZ	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			47.8 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 19:56	J7WE	ECL 1
Instrument ID: GC40										

Client Sample ID: CB-7

Lab Sample ID: 570-46895-8

Date Collected: 12/17/20 12:30

Matrix: Solid

Date Received: 12/22/20 12:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin Prep			10.03 g	5 mL	118921	12/28/20 11:35	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			120060	01/04/21 14:09	AJ2Q	ECL 1
Instrument ID: GCMSY										
Total/NA	Prep	8151A			49.8 g	5 mL	118615	12/23/20 18:53	J7WE	ECL 1
Total/NA	Analysis	8151A		1			120336	01/05/21 20:18	J7WE	ECL 1
Instrument ID: GC40										

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Eurofins Calscience LLC

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	20-003R	10-31-20 *
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Calscience LLC

Method Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Method	Method Description	Protocol	Laboratory
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	ECL 1
8151A	Herbicides (GC)	SW846	ECL 1
8151A	Extraction (Herbicides)	SW846	ECL 1
Organotin Prep	Extraction (Organotins)	None	ECL 1

Protocol References:

Lab SOP = Laboratory Standard Operating Procedure

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A0L0698

Job ID: 570-46895-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-46895-1	CB-1	Solid	12/17/20 10:10	12/22/20 12:10	
570-46895-2	CB-2	Solid	12/17/20 08:50	12/22/20 12:10	
570-46895-3	CB-3	Solid	12/17/20 09:15	12/22/20 12:10	
570-46895-4	CB-4	Solid	12/17/20 11:00	12/22/20 12:10	
570-46895-5	CB-4_DUP	Solid	12/17/20 11:05	12/22/20 12:10	
570-46895-6	CB-5	Solid	12/17/20 11:35	12/22/20 12:10	
570-46895-7	CB-6	Solid	12/17/20 13:10	12/22/20 12:10	
570-46895-8	CB-7	Solid	12/17/20 12:30	12/22/20 12:10	

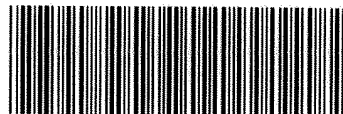
56895

SUBCONTRACT ORDER

Apex Laboratories

AB 12/18/20

A0L0698



570-46895 Chain of Custody

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone : (714) 895-5494
Fax: (714) 894-7501

Sample Name: CB-1

Solid

Sampled: 12/17/20 10:10

allium w
(A0L0698-01)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 10:10	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 10:10	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Sample Name: CB-2

Solid

Sampled: 12/17/20 08:50

(A0L0698-02)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 08:50	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 08:50	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Sample Name: CB-3

Solid

Sampled: 12/17/20 09:15

(A0L0698-03)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 09:15	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 09:15	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Sample Name: CB-4

Solid

Sampled: 12/17/20 11:00

(A0L0698-04)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/04/21 17:00	12/31/20 11:00	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 11:00	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Standard TAT

Tara Shipps 12-21-20

Fed Ex (Shipper)

Released By

Date

Received By

Date

Fed Ex (Shipper)

Released By

Date

Received By

Date

SUBCONTRACT ORDER

Apex Laboratories

AB ungho A0L0698

Sample Name: CB-4_DUP

Solid

Sampled: 12/17/20 11:05

ack 12/21/20
(A0L0698-05)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 11:05	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 11:05	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Sample Name: CB-5

Solid

Sampled: 12/17/20 11:35

(A0L0698-06)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 11:35	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 11:35	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Sample Name: CB-6

Solid

Sampled: 12/17/20 13:10

(A0L0698-07)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 13:10	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 13:10	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Sample Name: CB-7

Solid

Sampled: 12/17/20 12:30

(A0L0698-08)

Analysis	Due	Expires	Comments
8151A Herbicides (SUB)	01/08/21 17:00	12/31/20 12:30	Sub Eurofins_Calscience
TBT, Butyl Tins (3) (Sub)	01/08/21 17:00	12/31/20 12:30	Sub Eurofins_Calscience
Containers Supplied: (B)4 oz Glass Jar			

Standard TAT

Released By

Date

Received By

Date

Fed Ex (Shipper)

Released By

Date

Received By

Date

Fed Ex (Shipper)

Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-46895-1

Login Number: 46895

List Source: Eurofins Calscience

List Number: 1

Creator: Patel, Jayesh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CB-1 (A0L0698-01)				Matrix: Solid		Batch: 0120974		
% Solids	32.9	---	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-2 (A0L0698-02)				Matrix: Solid		Batch: 0120974		
% Solids	72.0	---	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-3 (A0L0698-03)				Matrix: Solid		Batch: 0120974		
% Solids	58.8	---	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-4 (A0L0698-04)				Matrix: Solid		Batch: 0120974		
% Solids	29.3	---	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-4_DUP (A0L0698-05)				Matrix: Solid		Batch: 0120933		
% Solids	26.6	---	1.00	%	1	12/30/20 07:25	EPA 8000D	
CB-5 (A0L0698-06)				Matrix: Solid		Batch: 0120974		
% Solids	32.4	---	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-6 (A0L0698-07)				Matrix: Solid		Batch: 0120974		
% Solids	33.5	---	1.00	%	1	12/31/20 07:21	EPA 8000D	
CB-7 (A0L0698-08)				Matrix: Solid		Batch: 0120974		
% Solids	40.2	---	1.00	%	1	12/31/20 07:21	EPA 8000D	

DRAFT REPORT

The results provided in this report are PRELIMINARY and are subject to change based on subsequent analysis, QC validation or final data review. Please use these results with the understanding that they may have not been finalized by the laboratory.

DRAFT REPORT, DATA SUBJECT TO CHANGE

Page 3 of 12



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Wednesday, April 21, 2021

Kyle Haggart
GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

RE: A1C0750 - Former Automatic Vending Co. - BCSAmerica-1-02

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1C0750, which was received by the laboratory on 3/18/2021 at 5:45:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	4.6 degC	Cooler#2	5.3 degC
Cooler#3	3.1 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C0750 - 04 21 21 2038

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1(031821)	A1C0750-01	Water	03/18/21 08:42	03/18/21 17:45
SW-1-DUP(031821)	A1C0750-02	Water	03/18/21 08:48	03/18/21 17:45
SW-2(031821)	A1C0750-03	Water	03/18/21 09:00	03/18/21 17:45
SW-1-TB(031821)	A1C0750-04	Water	03/18/21 00:00	03/18/21 17:45
SW-1-DUP-TB(031821)	A1C0750-05	Water	03/18/21 00:00	03/18/21 17:45
SW-2-TB(031821)	A1C0750-06	Water	03/18/21 00:00	03/18/21 17:45

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01)		Matrix: Water			Batch: 1030960			
Diesel	ND	0.110	0.220	mg/L	1	03/25/21 07:51	NWTPH-Dx	
Oil	ND	0.220	0.440	mg/L	1	03/25/21 07:51	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>03/25/21 07:51</i>	<i>NWTPH-Dx</i>	
SW-1-DUP(031821) (A1C0750-02)		Matrix: Water			Batch: 1030960			
Diesel	ND	0.118	0.235	mg/L	1	03/24/21 23:19	NWTPH-Dx	
Oil	ND	0.235	0.471	mg/L	1	03/24/21 23:19	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>03/24/21 23:19</i>	<i>NWTPH-Dx</i>	
SW-2(031821) (A1C0750-03)		Matrix: Water			Batch: 1030960			
Diesel	0.205	0.0962	0.192	mg/L	1	03/24/21 23:40	NWTPH-Dx	F-11, F-15
Oil	0.502	0.192	0.385	mg/L	1	03/24/21 23:40	NWTPH-Dx	F-16
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>03/24/21 23:40</i>	<i>NWTPH-Dx</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01)		Matrix: Water			Batch: 1030808			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/22/21 12:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 93 %	Limits: 50-150 %	1	03/22/21 12:51	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	03/22/21 12:51	NWTPH-Gx (MS)		
SW-1-DUP(031821) (A1C0750-02)		Matrix: Water			Batch: 1030808			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/22/21 13:19	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 95 %	Limits: 50-150 %	1	03/22/21 13:19	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	03/22/21 13:19	NWTPH-Gx (MS)		
SW-2(031821) (A1C0750-03)		Matrix: Water			Batch: 1030808			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/22/21 13:46	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 94 %	Limits: 50-150 %	1	03/22/21 13:46	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	03/22/21 13:46	NWTPH-Gx (MS)		

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01)				Matrix: Water		Batch: 1030808		
Acetone	20.5	10.0	20.0	ug/L	1	03/22/21 12:51	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/22/21 12:51	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/22/21 12:51	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/22/21 12:51	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/22/21 12:51	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 12:51	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	03/22/21 12:51	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 12:51	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 12:51	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 12:51	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/22/21 12:51	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/22/21 12:51	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/22/21 12:51	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/22/21 12:51	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01)		Matrix: Water			Batch: 1030808			
Naphthalene	ND	2.00	4.00	ug/L	1	03/22/21 12:51	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/22/21 12:51	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/22/21 12:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/22/21 12:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/22/21 12:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/22/21 12:51	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/22/21 12:51	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/22/21 12:51	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/22/21 12:51</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/22/21 12:51</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/22/21 12:51</i>	<i>EPA 8260D</i>	
SW-1-DUP(031821) (A1C0750-02)		Matrix: Water			Batch: 1030808			
Acetone	20.4	10.0	20.0	ug/L	1	03/22/21 13:19	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:19	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/22/21 13:19	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/22/21 13:19	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/22/21 13:19	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:19	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	03/22/21 13:19	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:19	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-DUP(031821) (A1C0750-02)				Matrix: Water		Batch: 1030808		
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:19	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:19	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/22/21 13:19	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/22/21 13:19	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/22/21 13:19	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/22/21 13:19	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	03/22/21 13:19	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:19	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/22/21 13:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/22/21 13:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/22/21 13:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/22/21 13:19	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/22/21 13:19	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/22/21 13:19	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/22/21 13:19</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/22/21 13:19</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/22/21 13:19</i>	<i>EPA 8260D</i>	

SW-2(031821) (A1C0750-03)				Matrix: Water		Batch: 1030808		
Acetone	ND	20.0	20.0	ug/L	1	03/22/21 13:46	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:46	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/22/21 13:46	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/22/21 13:46	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(031821) (A1C0750-03)		Matrix: Water			Batch: 1030808			
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/22/21 13:46	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:46	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	03/22/21 13:46	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:46	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:46	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:46	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/22/21 13:46	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/22/21 13:46	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/22/21 13:46	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/22/21 13:46	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	03/22/21 13:46	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/22/21 13:46	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/22/21 13:46	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/22/21 13:46	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/22/21 13:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/22/21 13:46	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/22/21 13:46	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/22/21 13:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %	1	03/22/21 13:46	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(031821) (A1C0750-03)				Matrix: Water		Batch: 1030808		
Surrogate: Toluene-d8 (Surr)		Recovery: 100 %	Limits: 80-120 %	1	03/22/21 13:46	EPA 8260D		
4-Bromofluorobenzene (Surr)		100 %	80-120 %	1	03/22/21 13:46	EPA 8260D		

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01)				Matrix: Water		Batch: 1031037		
Benzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
Toluene	0.0677	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	J
Ethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
m,p-Xylene	0.147	0.100	0.200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	J
o-Xylene	0.0588	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	J
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	03/26/21 13:47	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/26/21 13:47</i>	<i>EPA 8260D SIM</i>	
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/26/21 13:47</i>	<i>EPA 8260D SIM</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/26/21 13:47</i>	<i>EPA 8260D SIM</i>	

SW-1-DUP(031821) (A1C0750-02)**Matrix: Water****Batch: 1031037**

Benzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Toluene	0.0675	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	J
Ethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-DUP(031821) (A1C0750-02)				Matrix: Water		Batch: 1031037		
m,p-Xylene	0.127	0.100	0.200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	J
o-Xylene	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	03/26/21 14:13	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	102 %	Limits:	80-120 %	1	03/26/21 14:13	EPA 8260D SIM
Toluene-d8 (Surr)			92 %		80-120 %	1	03/26/21 14:13	EPA 8260D SIM
4-Bromofluorobenzene (Surr)			95 %		80-120 %	1	03/26/21 14:13	EPA 8260D SIM

SW-2(031821) (A1C0750-03)				Matrix: Water		Batch: 1031037		
Benzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(031821) (A1C0750-03)		Matrix: Water			Batch: 1031037			
Chloroform	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	03/26/21 14:40	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>102 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>03/26/21 14:40</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/26/21 14:40</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/26/21 14:40</i>	<i>EPA 8260D SIM</i>

SW-1-TB(031821) (A1C0750-04)		Matrix: Water			Batch: 1031037			
Benzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GeoDesign, Inc.**9450 SW Commerce Circle
Wilsonville, OR 97070Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-TB(031821) (A1C0750-04)		Matrix: Water			Batch: 1031037			
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	03/26/21 12:26	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/26/21 12:26</i>	<i>EPA 8260D SIM</i>	
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/26/21 12:26</i>	<i>EPA 8260D SIM</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/26/21 12:26</i>	<i>EPA 8260D SIM</i>	

SW-1-DUP-TB(031821) (A1C0750-05)**Matrix: Water****Batch: 1031037**

Benzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
Toluene	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
Ethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
m,p-Xylene	ND	0.100	0.200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
o-Xylene	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
Chloroform	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-DUP-TB(031821) (A1C0750-05)				Matrix: Water		Batch: 1031037		
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	03/26/21 12:53	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %	1	03/26/21 12:53	EPA 8260D SIM	
Toluene-d8 (Surr)		95 %		80-120 %	1	03/26/21 12:53	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		96 %		80-120 %	1	03/26/21 12:53	EPA 8260D SIM	
SW-2-TB(031821) (A1C0750-06)				Matrix: Water		Batch: 1031037		
Benzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-TB(031821) (A1C0750-06)		Matrix: Water			Batch: 1031037			
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	03/26/21 13:20	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	102 %	<i>Limits:</i>	80-120 %	1	03/26/21 13:20	EPA 8260D SIM
<i>Toluene-d8 (Surr)</i>			96 %		80-120 %	1	03/26/21 13:20	EPA 8260D SIM
<i>4-Bromofluorobenzene (Surr)</i>			97 %		80-120 %	1	03/26/21 13:20	EPA 8260D SIM

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C0750 - 04 21 21 2038

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01)		Matrix: Water			Batch: 1031065		C-07	
Aroclor 1016	ND	0.0123	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Aroclor 1221	ND	0.0247	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Aroclor 1232	ND	0.0123	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Aroclor 1242	ND	0.0123	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Aroclor 1248	ND	0.0123	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Aroclor 1254	ND	0.0123	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Aroclor 1260	ND	0.0123	0.0247	ug/L	1	03/29/21 15:56	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 72 %		Limits: 40-135 %	1	03/29/21 15:56	EPA 8082A	
SW-1-DUP(031821) (A1C0750-02)		Matrix: Water			Batch: 1031065		C-07	
Aroclor 1016	ND	0.0106	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Aroclor 1221	ND	0.0213	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Aroclor 1232	ND	0.0106	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Aroclor 1242	ND	0.0106	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Aroclor 1248	ND	0.0106	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Aroclor 1254	ND	0.0106	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Aroclor 1260	ND	0.0106	0.0213	ug/L	1	03/29/21 16:14	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 69 %		Limits: 40-135 %	1	03/29/21 16:14	EPA 8082A	
SW-2(031821) (A1C0750-03)		Matrix: Water			Batch: 1031065		C-07	
Aroclor 1016	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Aroclor 1221	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Aroclor 1232	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Aroclor 1242	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Aroclor 1248	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Aroclor 1254	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Aroclor 1260	ND	0.00952	0.0190	ug/L	1	03/29/21 16:31	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 63 %		Limits: 40-135 %	1	03/29/21 16:31	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01RE1)		Matrix: Water			Batch: 1030999		R-04	
Acenaphthene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Acenaphthylene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Anthracene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Benz(a)anthracene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Benzo(a)pyrene	ND	0.0659	0.132	ug/L	4	03/26/21 19:31	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0659	0.132	ug/L	4	03/26/21 19:31	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0659	0.132	ug/L	4	03/26/21 19:31	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Chrysene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Fluoranthene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Fluorene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
1-Methylnaphthalene	ND	0.0879	0.176	ug/L	4	03/26/21 19:31	EPA 8270E	
2-Methylnaphthalene	ND	0.0879	0.176	ug/L	4	03/26/21 19:31	EPA 8270E	
Naphthalene	ND	0.0879	0.176	ug/L	4	03/26/21 19:31	EPA 8270E	
Phenanthrene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Pyrene	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Carbazole	ND	0.0659	0.132	ug/L	4	03/26/21 19:31	EPA 8270E	
Dibenzofuran	ND	0.0440	0.0879	ug/L	4	03/26/21 19:31	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.879	1.76	ug/L	4	03/26/21 19:31	EPA 8270E	
Butyl benzyl phthalate	ND	0.879	1.76	ug/L	4	03/26/21 19:31	EPA 8270E	
Diethylphthalate	ND	0.879	1.76	ug/L	4	03/26/21 19:31	EPA 8270E	
Dimethylphthalate	ND	0.879	1.76	ug/L	4	03/26/21 19:31	EPA 8270E	
Di-n-butylphthalate	ND	0.879	1.76	ug/L	4	03/26/21 19:31	EPA 8270E	
Di-n-octyl phthalate	ND	0.879	1.76	ug/L	4	03/26/21 19:31	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	<i>57 %</i>	<i>Limits:</i>	<i>44-120 %</i>	<i>4</i>	<i>03/26/21 19:31</i>	<i>EPA 8270E</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>47 %</i>		<i>44-120 %</i>	<i>4</i>	<i>03/26/21 19:31</i>	<i>EPA 8270E</i>
<i>Phenol-d6 (Surr)</i>			<i>19 %</i>		<i>10-133 %</i>	<i>4</i>	<i>03/26/21 19:31</i>	<i>EPA 8270E</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>62 %</i>		<i>50-134 %</i>	<i>4</i>	<i>03/26/21 19:31</i>	<i>EPA 8270E</i>
<i>2-Fluorophenol (Surr)</i>			<i>26 %</i>		<i>19-120 %</i>	<i>4</i>	<i>03/26/21 19:31</i>	<i>EPA 8270E</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>83 %</i>		<i>43-140 %</i>	<i>4</i>	<i>03/26/21 19:31</i>	<i>EPA 8270E</i>
SW-1-DUP(031821) (A1C0750-02RE1)		Matrix: Water			Batch: 1030999		R-04	

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ANALYTICAL REPORT

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-DUP(031821) (A1C0750-02RE1)				Matrix: Water		Batch: 1030999		R-04
Acenaphthene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Acenaphthylene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Anthracene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Benz(a)anthracene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Benzo(a)pyrene	ND	0.0690	0.138	ug/L	4	03/26/21 20:06	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0690	0.138	ug/L	4	03/26/21 20:06	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0690	0.138	ug/L	4	03/26/21 20:06	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Chrysene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Fluoranthene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Fluorene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
1-Methylnaphthalene	ND	0.0920	0.184	ug/L	4	03/26/21 20:06	EPA 8270E	
2-Methylnaphthalene	ND	0.0920	0.184	ug/L	4	03/26/21 20:06	EPA 8270E	
Naphthalene	ND	0.0920	0.184	ug/L	4	03/26/21 20:06	EPA 8270E	
Phenanthrene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Pyrene	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Carbazole	ND	0.0690	0.138	ug/L	4	03/26/21 20:06	EPA 8270E	
Dibenzofuran	ND	0.0460	0.0920	ug/L	4	03/26/21 20:06	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.920	1.84	ug/L	4	03/26/21 20:06	EPA 8270E	
Butyl benzyl phthalate	ND	0.920	1.84	ug/L	4	03/26/21 20:06	EPA 8270E	
Diethylphthalate	ND	0.920	1.84	ug/L	4	03/26/21 20:06	EPA 8270E	
Dimethylphthalate	ND	0.920	1.84	ug/L	4	03/26/21 20:06	EPA 8270E	
Di-n-butylphthalate	ND	0.920	1.84	ug/L	4	03/26/21 20:06	EPA 8270E	
Di-n-octyl phthalate	ND	0.920	1.84	ug/L	4	03/26/21 20:06	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	56 %	<i>Limits:</i>	44-120 %	4	03/26/21 20:06	EPA 8270E Q-41
<i>2-Fluorobiphenyl (Surr)</i>			44 %		44-120 %	4	03/26/21 20:06	EPA 8270E
<i>Phenol-d6 (Surr)</i>			20 %		10-133 %	4	03/26/21 20:06	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			63 %		50-134 %	4	03/26/21 20:06	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			25 %		19-120 %	4	03/26/21 20:06	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			81 %		43-140 %	4	03/26/21 20:06	EPA 8270E
SW-2(031821) (A1C0750-03RE1)				Matrix: Water		Batch: 1030999		R-04

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(031821) (A1C0750-03RE1)				Matrix: Water		Batch: 1030999		R-04
Acenaphthene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Acenaphthylene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Anthracene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Benz(a)anthracene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Benzo(a)pyrene	ND	0.0561	0.112	ug/L	4	03/26/21 20:42	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0561	0.112	ug/L	4	03/26/21 20:42	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0561	0.112	ug/L	4	03/26/21 20:42	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Chrysene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Fluoranthene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Fluorene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
1-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	03/26/21 20:42	EPA 8270E	
2-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	03/26/21 20:42	EPA 8270E	
Naphthalene	ND	0.0748	0.150	ug/L	4	03/26/21 20:42	EPA 8270E	
Phenanthrene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Pyrene	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Carbazole	ND	0.0561	0.112	ug/L	4	03/26/21 20:42	EPA 8270E	
Dibenzofuran	ND	0.0374	0.0748	ug/L	4	03/26/21 20:42	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.748	1.50	ug/L	4	03/26/21 20:42	EPA 8270E	
Butyl benzyl phthalate	ND	0.748	1.50	ug/L	4	03/26/21 20:42	EPA 8270E	
Diethylphthalate	ND	0.748	1.50	ug/L	4	03/26/21 20:42	EPA 8270E	
Dimethylphthalate	ND	0.748	1.50	ug/L	4	03/26/21 20:42	EPA 8270E	
Di-n-butylphthalate	ND	0.748	1.50	ug/L	4	03/26/21 20:42	EPA 8270E	
Di-n-octyl phthalate	ND	0.748	1.50	ug/L	4	03/26/21 20:42	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	78 %	Limits:	44-120 %	4	03/26/21 20:42	EPA 8270E Q-41
2-Fluorobiphenyl (Surr)			61 %		44-120 %	4	03/26/21 20:42	EPA 8270E
Phenol-d6 (Surr)			28 %		10-133 %	4	03/26/21 20:42	EPA 8270E
p-Terphenyl-d14 (Surr)			62 %		50-134 %	4	03/26/21 20:42	EPA 8270E
2-Fluorophenol (Surr)			38 %		19-120 %	4	03/26/21 20:42	EPA 8270E
2,4,6-Tribromophenol (Surr)			92 %		43-140 %	4	03/26/21 20:42	EPA 8270E

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01) Matrix: Water								
Batch: 1031154								
Chromium	ND	0.500	1.00	ug/L	1	03/30/21 20:18	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	03/30/21 20:18	EPA 200.8	
Zinc	79.5	2.00	4.00	ug/L	1	03/30/21 20:18	EPA 200.8	
SW-1-DUP(031821) (A1C0750-02) Matrix: Water								
Batch: 1031154								
Chromium	ND	0.500	1.00	ug/L	1	03/30/21 20:23	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	03/30/21 20:23	EPA 200.8	
Zinc	77.3	2.00	4.00	ug/L	1	03/30/21 20:23	EPA 200.8	
SW-2(031821) (A1C0750-03) Matrix: Water								
Batch: 1031154								
Chromium	ND	0.500	1.00	ug/L	1	03/30/21 20:28	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	03/30/21 20:28	EPA 200.8	
Zinc	142	2.00	4.00	ug/L	1	03/30/21 20:28	EPA 200.8	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Tigard, OR 97223

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 200.8 (ICPMS) - Low Level**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(031821) (A1C0750-01) Matrix: Water								
Batch: 1040504								
Arsenic	0.207	0.0500	0.100	ug/L	1	04/19/21 16:04	EPA 200.8-LL	
SW-1(031821) (A1C0750-01RE2) Matrix: Water								
Batch: 1040504								
Cadmium	0.0347	0.00900	0.0180	ug/L	1	04/19/21 20:05	EPA 200.8-LL	
SW-1-DUP(031821) (A1C0750-02) Matrix: Water								
Batch: 1040504								
Arsenic	0.185	0.0500	0.100	ug/L	1	04/19/21 16:11	EPA 200.8-LL	
SW-1-DUP(031821) (A1C0750-02RE1) Matrix: Water								
Batch: 1040504								
Cadmium	0.0327	0.00900	0.0180	ug/L	1	04/19/21 19:44	EPA 200.8-LL	
SW-2(031821) (A1C0750-03) Matrix: Water								
Batch: 1040504								
Arsenic	0.239	0.0500	0.100	ug/L	1	04/19/21 16:18	EPA 200.8-LL	
Cadmium	0.0683	0.00900	0.0180	ug/L	1	04/19/21 16:18	EPA 200.8-LL	

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 1030960 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (1030960-BLK1)			Prepared: 03/24/21 13:23 Analyzed: 03/25/21 04:54										
NWTPH-Dx													
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---		
Oil	ND	0.182	0.364	mg/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x							
LCS (1030960-BS1)			Prepared: 03/24/21 13:23 Analyzed: 03/25/21 05:16										
NWTPH-Dx													
Diesel	1.05	0.100	0.200	mg/L	1	1.25	---	84	59-115%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (1030960-BSD1)			Prepared: 03/24/21 13:23 Analyzed: 03/25/21 05:38										Q-19
NWTPH-Dx													
Diesel	1.03	0.100	0.200	mg/L	1	1.25	---	82	59-115%	2	30%		
Surr: o-Terphenyl (Surr)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x							

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Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Blank (1030808-BLK1)			Prepared: 03/22/21 07:30 Analyzed: 03/22/21 10:33									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 94 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"						
LCS (1030808-BS2)			Prepared: 03/22/21 07:30 Analyzed: 03/22/21 09:38									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.420	0.0500	0.100	mg/L	1	0.500	---	84	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 102 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		100 %		50-150 %		"						
Duplicate (1030808-DUP1)			Prepared: 03/22/21 07:50 Analyzed: 03/22/21 15:08									
<u>QC Source Sample: Non-SDG (A1C0729-04)</u>												
Gasoline Range Organics	0.873	0.0500	0.100	mg/L	1	---	0.862	---	---	1	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 105 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		101 %		50-150 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Blank (1030808-BLK1)			Prepared: 03/22/21 07:30		Analyzed: 03/22/21 10:33							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Blank (1030808-BLK1)						Prepared: 03/22/21 07:30 Analyzed: 03/22/21 10:33						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 101 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Blank (1030808-BLK1)				Prepared: 03/22/21 07:30		Analyzed: 03/22/21 10:33						
Surr: Toluene-d8 (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
LCS (1030808-BS1)				Prepared: 03/22/21 07:30		Analyzed: 03/22/21 08:53						
EPA 8260D												
Acetone	35.6	10.0	20.0	ug/L	1	40.0	---	89	80-120%	---	---	
Acrylonitrile	19.2	1.00	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
Benzene	18.6	0.100	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Bromobenzene	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Bromochloromethane	21.9	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.9	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	27.2	0.500	1.00	ug/L	1	20.0	---	136	80-120%	---	---	Q-56
Bromomethane	28.1	5.00	5.00	ug/L	1	20.0	---	141	80-120%	---	---	Q-56
2-Butanone (MEK)	35.6	5.00	10.0	ug/L	1	40.0	---	89	80-120%	---	---	
n-Butylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
sec-Butylbenzene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
tert-Butylbenzene	18.7	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Carbon disulfide	18.4	5.00	10.0	ug/L	1	20.0	---	92	80-120%	---	---	
Carbon tetrachloride	23.6	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
Chlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	20.0	5.00	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroform	20.5	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	12.9	5.00	5.00	ug/L	1	20.0	---	64	80-120%	---	---	Q-55
2-Chlorotoluene	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromochloromethane	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.2	2.50	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.3	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Dibromomethane	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichlorobenzene	19.8	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dichlorodifluoromethane	16.7	0.500	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,1-Dichloroethane	18.3	0.200	0.400	ug/L	1	20.0	---	92	80-120%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
LCS (1030808-BS1)						Prepared: 03/22/21 07:30 Analyzed: 03/22/21 08:53						
1,2-Dichloroethane (EDC)	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethene	18.7	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
cis-1,2-Dichloroethene	19.3	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dichloropropane	18.5	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichloropropane	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	18.0	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,1-Dichloropropene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,3-Dichloropropene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Ethylbenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	19.5	2.50	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
2-Hexanone	35.1	5.00	10.0	ug/L	1	40.0	---	88	80-120%	---	---	
Isopropylbenzene	21.3	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
4-Isopropyltoluene	20.9	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Methylene chloride	19.9	5.00	10.0	ug/L	1	20.0	---	99	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	36.1	5.00	10.0	ug/L	1	40.0	---	90	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.3	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Naphthalene	16.8	2.00	4.00	ug/L	1	20.0	---	84	80-120%	---	---	
n-Propylbenzene	19.5	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Styrene	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.4	0.200	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Tetrachloroethene (PCE)	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Toluene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,3-Trichlorobenzene	20.3	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trichlorobenzene	21.0	1.00	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,1-Trichloroethane	20.8	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2-Trichloroethane	20.7	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Trichloroethene (TCE)	21.1	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichlorofluoromethane	23.2	1.00	2.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,2,3-Trichloropropane	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,4-Trimethylbenzene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,3,5-Trimethylbenzene	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	

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Philip Nerenberg, Lab Director

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
LCS (1030808-BS1)				Prepared: 03/22/21 07:30		Analyzed: 03/22/21 08:53						
Vinyl chloride	18.8	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
m,p-Xylene	40.6	0.500	1.00	ug/L	1	40.0	---	102	80-120%	---	---	
o-Xylene	19.5	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		95 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
Duplicate (1030808-DUP1)				Prepared: 03/22/21 07:50		Analyzed: 03/22/21 15:08						
QC Source Sample: Non-SDG (A1C0729-04)												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	3.00	3.00	ug/L	1	---	ND	---	---	---	30%	R-02
Benzene	0.204	0.100	0.200	ug/L	1	---	0.219	---	---	7	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	0.852	0.500	1.00	ug/L	1	---	0.802	---	---	6	30%	J
sec-Butylbenzene	2.70	0.500	1.00	ug/L	1	---	2.70	---	---	0	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Duplicate (1030808-DUP1)			Prepared: 03/22/21 07:50		Analyzed: 03/22/21 15:08							
QC Source Sample: Non-SDG (A1C0729-04)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	8.58	0.250	0.500	ug/L	1	---	8.58	---	---	0.01	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	3.07	0.500	1.00	ug/L	1	---	3.02	---	---	2	30%	
4-Isopropyltoluene	0.963	0.500	1.00	ug/L	1	---	1.00	---	---	4	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	10.5	2.00	4.00	ug/L	1	---	9.75	---	---	7	30%	
n-Propylbenzene	4.19	0.250	0.500	ug/L	1	---	4.20	---	---	0.1	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	0.657	0.500	1.00	ug/L	1	---	0.618	---	---	6	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

Page 29 of 53



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Duplicate (1030808-DUP1)			Prepared: 03/22/21 07:50		Analyzed: 03/22/21 15:08							
QC Source Sample: Non-SDG (A1C0729-04)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	8.92	0.500	1.00	ug/L	1	---	8.79	---	---	2	30%	
1,3,5-Trimethylbenzene	45.6	0.500	1.00	ug/L	1	---	45.1	---	---	1	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	10.1	0.500	1.00	ug/L	1	---	9.95	---	---	1	30%	
o-Xylene	0.886	0.250	0.500	ug/L	1	---	0.841	---	---	5	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						
Matrix Spike (1030808-MS1)						Prepared: 03/22/21 07:50		Analyzed: 03/22/21 20:05				
QC Source Sample: Non-SDG (A1C0767-05)												
EPA 8260D												
Acetone	36.7	10.0	20.0	ug/L	1	40.0	ND	92	39-160%	---	---	
Acrylonitrile	18.6	1.00	2.00	ug/L	1	20.0	ND	93	63-135%	---	---	
Benzene	19.4	0.100	0.200	ug/L	1	20.0	ND	97	79-120%	---	---	
Bromobenzene	20.5	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Bromochloromethane	22.6	0.500	1.00	ug/L	1	20.0	ND	113	78-123%	---	---	
Bromodichloromethane	22.4	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
Bromoform	27.3	0.500	1.00	ug/L	1	20.0	ND	137	66-130%	---	---	Q-54a
Bromomethane	32.0	5.00	5.00	ug/L	1	20.0	ND	160	53-141%	---	---	Q-54b
2-Butanone (MEK)	35.6	5.00	10.0	ug/L	1	40.0	ND	89	56-143%	---	---	
n-Butylbenzene	18.9	0.500	1.00	ug/L	1	20.0	ND	95	75-128%	---	---	
sec-Butylbenzene	20.7	0.500	1.00	ug/L	1	20.0	ND	104	77-126%	---	---	
tert-Butylbenzene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	78-124%	---	---	
Carbon disulfide	19.2	5.00	10.0	ug/L	1	20.0	ND	96	64-133%	---	---	
Carbon tetrachloride	24.5	0.500	1.00	ug/L	1	20.0	ND	122	72-136%	---	---	
Chlorobenzene	20.3	0.250	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Chloroethane	22.3	5.00	5.00	ug/L	1	20.0	ND	112	60-138%	---	---	
Chloroform	22.1	0.500	1.00	ug/L	1	20.0	0.749	107	79-124%	---	---	
Chloromethane	13.5	5.00	5.00	ug/L	1	20.0	ND	67	50-139%	---	---	Q-54d

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Matrix Spike (1030808-MS1)			Prepared: 03/22/21 07:50 Analyzed: 03/22/21 20:05									
QC Source Sample: Non-SDG (A1C0767-05)												
2-Chlorotoluene	20.4	0.500	1.00	ug/L	1	20.0	ND	102	79-122%	---	---	
4-Chlorotoluene	19.9	0.500	1.00	ug/L	1	20.0	ND	99	78-122%	---	---	
Dibromochloromethane	22.6	0.500	1.00	ug/L	1	20.0	ND	113	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.6	2.50	5.00	ug/L	1	20.0	ND	93	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.4	0.250	0.500	ug/L	1	20.0	ND	102	77-121%	---	---	
Dibromomethane	21.2	0.500	1.00	ug/L	1	20.0	ND	106	79-123%	---	---	
1,2-Dichlorobenzene	19.8	0.250	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
1,3-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
1,4-Dichlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	79-120%	---	---	
Dichlorodifluoromethane	17.3	0.500	1.00	ug/L	1	20.0	ND	86	32-152%	---	---	
1,1-Dichloroethane	18.8	0.200	0.400	ug/L	1	20.0	ND	94	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.8	0.200	0.400	ug/L	1	20.0	ND	104	73-128%	---	---	
1,1-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	ND	99	71-131%	---	---	
cis-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	ND	100	78-123%	---	---	
trans-1,2-Dichloroethene	20.3	0.200	0.400	ug/L	1	20.0	ND	101	75-124%	---	---	
1,2-Dichloropropane	19.0	0.250	0.500	ug/L	1	20.0	ND	95	78-122%	---	---	
1,3-Dichloropropane	20.1	0.500	1.00	ug/L	1	20.0	ND	100	80-120%	---	---	
2,2-Dichloropropane	15.8	0.500	1.00	ug/L	1	20.0	ND	79	60-139%	---	---	
1,1-Dichloropropene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	79-125%	---	---	
cis-1,3-Dichloropropene	18.1	0.500	1.00	ug/L	1	20.0	ND	91	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	0.500	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Ethylbenzene	20.6	0.250	0.500	ug/L	1	20.0	ND	103	79-121%	---	---	
Hexachlorobutadiene	19.5	2.50	5.00	ug/L	1	20.0	ND	97	66-134%	---	---	
2-Hexanone	34.8	5.00	10.0	ug/L	1	40.0	ND	87	57-139%	---	---	
Isopropylbenzene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	72-131%	---	---	
4-Isopropyltoluene	20.5	0.500	1.00	ug/L	1	20.0	ND	102	77-127%	---	---	
Methylene chloride	20.5	5.00	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	35.6	5.00	10.0	ug/L	1	40.0	ND	89	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	17.1	0.500	1.00	ug/L	1	20.0	ND	86	71-124%	---	---	
Naphthalene	15.4	2.00	4.00	ug/L	1	20.0	ND	77	61-128%	---	---	
n-Propylbenzene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	76-126%	---	---	
Styrene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	78-123%	---	---	
1,1,1,2-Tetrachloroethane	22.5	0.200	0.400	ug/L	1	20.0	ND	113	78-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Matrix Spike (1030808-MS1)			Prepared: 03/22/21 07:50		Analyzed: 03/22/21 20:05							
QC Source Sample: Non-SDG (A1C0767-05)												
1,1,2,2-Tetrachloroethane	19.0	0.250	0.500	ug/L	1	20.0	ND	95	71-121%	---	---	
Tetrachloroethene (PCE)	21.9	0.200	0.400	ug/L	1	20.0	ND	109	74-129%	---	---	
Toluene	19.3	0.500	1.00	ug/L	1	20.0	ND	96	80-121%	---	---	
1,2,3-Trichlorobenzene	18.3	1.00	2.00	ug/L	1	20.0	ND	91	69-129%	---	---	
1,2,4-Trichlorobenzene	19.2	1.00	2.00	ug/L	1	20.0	ND	96	69-130%	---	---	
1,1,1-Trichloroethane	21.6	0.200	0.400	ug/L	1	20.0	ND	108	74-131%	---	---	
1,1,2-Trichloroethane	20.5	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Trichloroethene (TCE)	27.9	0.200	0.400	ug/L	1	20.0	5.78	111	79-123%	---	---	
Trichlorofluoromethane	25.0	1.00	2.00	ug/L	1	20.0	ND	125	65-141%	---	---	
1,2,3-Trichloropropane	19.2	0.500	1.00	ug/L	1	20.0	ND	96	73-122%	---	---	
1,2,4-Trimethylbenzene	19.7	0.500	1.00	ug/L	1	20.0	ND	99	76-124%	---	---	
1,3,5-Trimethylbenzene	21.5	0.500	1.00	ug/L	1	20.0	ND	108	75-124%	---	---	
Vinyl chloride	20.2	0.200	0.400	ug/L	1	20.0	ND	101	58-137%	---	---	
m,p-Xylene	41.7	0.500	1.00	ug/L	1	40.0	ND	104	80-121%	---	---	
o-Xylene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		94 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

Matrix Spike Dup (1030808-MSD1)

Prepared: 03/22/21 07:50 Analyzed: 03/22/21 20:32

QC Source Sample: Non-SDG (A1C0767-05)												
Acetone	37.6	10.0	20.0	ug/L	1	40.0	ND	94	39-160%	2	30%	
Acrylonitrile	19.3	1.00	2.00	ug/L	1	20.0	ND	97	63-135%	4	30%	
Benzene	20.5	0.100	0.200	ug/L	1	20.0	ND	102	79-120%	5	30%	
Bromobenzene	21.5	0.250	0.500	ug/L	1	20.0	ND	108	80-120%	5	30%	
Bromochloromethane	23.8	0.500	1.00	ug/L	1	20.0	ND	119	78-123%	5	30%	
Bromodichloromethane	23.3	0.500	1.00	ug/L	1	20.0	ND	117	79-125%	4	30%	
Bromoform	28.7	0.500	1.00	ug/L	1	20.0	ND	144	66-130%	5	30%	Q-54a
Bromomethane	33.3	5.00	5.00	ug/L	1	20.0	ND	166	53-141%	4	30%	Q-54b
2-Butanone (MEK)	37.2	5.00	10.0	ug/L	1	40.0	ND	93	56-143%	4	30%	
n-Butylbenzene	20.5	0.500	1.00	ug/L	1	20.0	ND	103	75-128%	8	30%	
sec-Butylbenzene	22.3	0.500	1.00	ug/L	1	20.0	ND	111	77-126%	7	30%	
tert-Butylbenzene	20.1	0.500	1.00	ug/L	1	20.0	ND	100	78-124%	4	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Matrix Spike Dup (1030808-MSD1)			Prepared: 03/22/21 07:50		Analyzed: 03/22/21 20:32							
QC Source Sample: Non-SDG (A1C0767-05)												
Carbon disulfide	20.6	5.00	10.0	ug/L	1	20.0	ND	103	64-133%	7	30%	Q-54d
Carbon tetrachloride	25.8	0.500	1.00	ug/L	1	20.0	ND	129	72-136%	5	30%	
Chlorobenzene	21.5	0.250	0.500	ug/L	1	20.0	ND	107	80-120%	5	30%	
Chloroethane	24.0	5.00	5.00	ug/L	1	20.0	ND	120	60-138%	7	30%	
Chloroform	23.0	0.500	1.00	ug/L	1	20.0	0.749	111	79-124%	4	30%	
Chloromethane	14.6	5.00	5.00	ug/L	1	20.0	ND	73	50-139%	8	30%	
2-Chlorotoluene	21.5	0.500	1.00	ug/L	1	20.0	ND	108	79-122%	5	30%	
4-Chlorotoluene	21.0	0.500	1.00	ug/L	1	20.0	ND	105	78-122%	6	30%	
Dibromochloromethane	24.5	0.500	1.00	ug/L	1	20.0	ND	122	74-126%	8	30%	
1,2-Dibromo-3-chloropropane	19.5	2.50	5.00	ug/L	1	20.0	ND	98	62-128%	5	30%	
1,2-Dibromoethane (EDB)	21.3	0.250	0.500	ug/L	1	20.0	ND	106	77-121%	4	30%	
Dibromomethane	22.3	0.500	1.00	ug/L	1	20.0	ND	112	79-123%	5	30%	
1,2-Dichlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	7	30%	
1,3-Dichlorobenzene	21.7	0.250	0.500	ug/L	1	20.0	ND	109	80-120%	7	30%	
1,4-Dichlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	79-120%	6	30%	
Dichlorodifluoromethane	18.7	0.500	1.00	ug/L	1	20.0	ND	93	32-152%	8	30%	
1,1-Dichloroethane	20.0	0.200	0.400	ug/L	1	20.0	ND	100	77-125%	6	30%	
1,2-Dichloroethane (EDC)	21.4	0.200	0.400	ug/L	1	20.0	ND	107	73-128%	3	30%	
1,1-Dichloroethene	20.6	0.200	0.400	ug/L	1	20.0	ND	103	71-131%	4	30%	
cis-1,2-Dichloroethene	20.9	0.200	0.400	ug/L	1	20.0	ND	104	78-123%	4	30%	
trans-1,2-Dichloroethene	21.2	0.200	0.400	ug/L	1	20.0	ND	106	75-124%	5	30%	
1,2-Dichloropropane	20.0	0.250	0.500	ug/L	1	20.0	ND	100	78-122%	5	30%	
1,3-Dichloropropane	21.3	0.500	1.00	ug/L	1	20.0	ND	106	80-120%	6	30%	
2,2-Dichloropropane	16.4	0.500	1.00	ug/L	1	20.0	ND	82	60-139%	4	30%	
1,1-Dichloropropene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-125%	3	30%	
cis-1,3-Dichloropropene	18.8	0.500	1.00	ug/L	1	20.0	ND	94	75-124%	4	30%	
trans-1,3-Dichloropropene	19.7	0.500	1.00	ug/L	1	20.0	ND	98	73-127%	7	30%	
Ethylbenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	79-121%	5	30%	
Hexachlorobutadiene	20.8	2.50	5.00	ug/L	1	20.0	ND	104	66-134%	6	30%	
2-Hexanone	36.4	5.00	10.0	ug/L	1	40.0	ND	91	57-139%	4	30%	
Isopropylbenzene	23.0	0.500	1.00	ug/L	1	20.0	ND	115	72-131%	5	30%	
4-Isopropyltoluene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	77-127%	7	30%	
Methylene chloride	21.2	5.00	10.0	ug/L	1	20.0	ND	106	74-124%	3	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030808 - EPA 5030B						Water						
Matrix Spike Dup (1030808-MSD1)			Prepared: 03/22/21 07:50		Analyzed: 03/22/21 20:32							
QC Source Sample: Non-SDG (A1C0767-05)												
4-Methyl-2-pentanone (MiBK)	37.5	5.00	10.0	ug/L	1	40.0	ND	94	67-130%	5	30%	
Methyl tert-butyl ether (MTBE)	18.2	0.500	1.00	ug/L	1	20.0	ND	91	71-124%	6	30%	
Naphthalene	16.8	2.00	4.00	ug/L	1	20.0	ND	84	61-128%	9	30%	
n-Propylbenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	106	76-126%	6	30%	
Styrene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	78-123%	7	30%	
1,1,1,2-Tetrachloroethane	23.7	0.200	0.400	ug/L	1	20.0	ND	118	78-124%	5	30%	
1,1,2,2-Tetrachloroethane	20.0	0.250	0.500	ug/L	1	20.0	ND	100	71-121%	5	30%	
Tetrachloroethene (PCE)	23.4	0.200	0.400	ug/L	1	20.0	ND	117	74-129%	7	30%	
Toluene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	80-121%	5	30%	
1,2,3-Trichlorobenzene	19.7	1.00	2.00	ug/L	1	20.0	ND	99	69-129%	8	30%	
1,2,4-Trichlorobenzene	20.9	1.00	2.00	ug/L	1	20.0	ND	104	69-130%	8	30%	
1,1,1-Trichloroethane	22.6	0.200	0.400	ug/L	1	20.0	ND	113	74-131%	4	30%	
1,1,2-Trichloroethane	21.9	0.250	0.500	ug/L	1	20.0	ND	110	80-120%	6	30%	
Trichloroethene (TCE)	29.6	0.200	0.400	ug/L	1	20.0	5.78	119	79-123%	6	30%	
Trichlorofluoromethane	26.1	1.00	2.00	ug/L	1	20.0	ND	130	65-141%	4	30%	
1,2,3-Trichloropropane	20.2	0.500	1.00	ug/L	1	20.0	ND	101	73-122%	5	30%	
1,2,4-Trimethylbenzene	21.3	0.500	1.00	ug/L	1	20.0	ND	107	76-124%	8	30%	
1,3,5-Trimethylbenzene	22.7	0.500	1.00	ug/L	1	20.0	ND	114	75-124%	5	30%	
Vinyl chloride	21.5	0.200	0.400	ug/L	1	20.0	ND	108	58-137%	6	30%	
m,p-Xylene	44.0	0.500	1.00	ug/L	1	40.0	ND	110	80-121%	5	30%	
o-Xylene	21.1	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	6	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		95 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031037 - EPA 5030B						Water						
Blank (1031037-BLK1)			Prepared: 03/26/21 08:00 Analyzed: 03/26/21 11:59									
EPA 8260D SIM												
Benzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

LCS (1031037-BS1)

Prepared: 03/26/21 08:00 Analyzed: 03/26/21 11:25

EPA 8260D SIM

Benzene	0.216	0.0500	0.100	ug/L	1	0.200	---	108	80-120%	---	---
Toluene	0.182	0.0500	0.100	ug/L	1	0.200	---	91	80-120%	---	---

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ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031037 - EPA 5030B						Water						
LCS (1031037-BS1)		Prepared: 03/26/21 08:00				Analyzed: 03/26/21 11:25						
Ethylbenzene	0.178	0.0500	0.100	ug/L	1	0.200	---	89	80-120%	---	---	
m,p-Xylene	0.339	0.100	0.200	ug/L	1	0.400	---	85	80-120%	---	---	
o-Xylene	0.175	0.0500	0.100	ug/L	1	0.200	---	87	80-120%	---	---	
1,2,4-Trimethylbenzene	0.175	0.0500	0.100	ug/L	1	0.200	---	87	80-120%	---	---	
1,3,5-Trimethylbenzene	0.180	0.0500	0.100	ug/L	1	0.200	---	90	80-120%	---	---	
Chloroform	0.207	0.0500	0.100	ug/L	1	0.200	---	103	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.229	0.100	0.200	ug/L	1	0.200	---	114	80-120%	---	---	
1,2-Dibromoethane (EDB)	0.190	0.0100	0.0200	ug/L	1	0.200	---	95	80-120%	---	---	
1,1-Dichloroethane	0.192	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.230	0.0100	0.0200	ug/L	1	0.200	---	115	80-120%	---	---	
1,1-Dichloroethene	0.191	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
cis-1,2-Dichloroethene	0.197	0.0100	0.0200	ug/L	1	0.200	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	0.194	0.0100	0.0200	ug/L	1	0.200	---	97	80-120%	---	---	
1,2-Dichloropropane	0.242	0.0100	0.0200	ug/L	1	0.200	---	121	80-120%	---	---	Q-56
cis-1,3-Dichloropropene	0.165	0.0100	0.0200	ug/L	1	0.200	---	82	80-120%	---	---	
trans-1,3-Dichloropropene	0.180	0.0100	0.0200	ug/L	1	0.200	---	90	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	0.212	0.0100	0.0200	ug/L	1	0.200	---	106	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.239	0.0100	0.0200	ug/L	1	0.200	---	120	80-120%	---	---	
Tetrachloroethene (PCE)	0.172	0.0100	0.0200	ug/L	1	0.200	---	86	80-120%	---	---	
1,1,2-Trichloroethane	0.205	0.0100	0.0200	ug/L	1	0.200	---	103	80-120%	---	---	
Trichloroethene (TCE)	0.228	0.0100	0.0200	ug/L	1	0.200	---	114	80-120%	---	---	
1,2,3-Trichloropropane	0.227	0.0500	0.100	ug/L	1	0.200	---	114	80-120%	---	---	
Vinyl chloride	0.257	0.0100	0.0200	ug/L	1	0.200	---	128	80-120%	---	---	Q-56
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		94 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

Duplicate (1031037-DUP1)

Prepared: 03/26/21 11:14 Analyzed: 03/26/21 15:07

QC Source Sample: SW-2(031821) (A1C0750-03)**EPA 8260D SIM**

Benzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%
Toluene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%
Ethylbenzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%
m,p-Xylene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031037 - EPA 5030B						Water						
Duplicate (1031037-DUP1)			Prepared: 03/26/21 11:14 Analyzed: 03/26/21 15:07									
QC Source Sample: SW-2(031821) (A1C0750-03)												
o-Xylene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		95 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

Matrix Spike (1031037-MS1)

Prepared: 03/26/21 11:14 Analyzed: 03/26/21 15:34

QC Source Sample: SW-2(031821) (A1C0750-03)**EPA 8260D SIM**

Benzene	0.243	0.0500	0.100	ug/L	1	0.200	ND	121	79-120%	---	---	Q-01
Toluene	0.220	0.0500	0.100	ug/L	1	0.200	ND	110	80-121%	---	---	
Ethylbenzene	0.196	0.0500	0.100	ug/L	1	0.200	ND	98	79-121%	---	---	
m,p-Xylene	0.392	0.100	0.200	ug/L	1	0.400	ND	98	80-121%	---	---	
o-Xylene	0.184	0.0500	0.100	ug/L	1	0.200	ND	92	78-122%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031037 - EPA 5030B						Water						
Matrix Spike (1031037-MS1)			Prepared: 03/26/21 11:14		Analyzed: 03/26/21 15:34							
QC Source Sample: SW-2(031821) (A1C0750-03)												
1,2,4-Trimethylbenzene	0.198	0.0500	0.100	ug/L	1	0.200	ND	99	76-124%	---	---	
1,3,5-Trimethylbenzene	0.205	0.0500	0.100	ug/L	1	0.200	ND	102	75-124%	---	---	
Chloroform	0.233	0.0500	0.100	ug/L	1	0.200	ND	116	79-124%	---	---	
1,2-Dibromo-3-chloropropane	0.201	0.100	0.200	ug/L	1	0.200	ND	100	62-128%	---	---	
1,2-Dibromoethane (EDB)	0.200	0.0100	0.0200	ug/L	1	0.200	ND	100	77-121%	---	---	
1,1-Dichloroethane	0.247	0.0100	0.0200	ug/L	1	0.200	ND	123	77-125%	---	---	
1,2-Dichloroethane (EDC)	0.244	0.0100	0.0200	ug/L	1	0.200	ND	122	73-128%	---	---	
1,1-Dichloroethene	0.226	0.0100	0.0200	ug/L	1	0.200	ND	113	71-131%	---	---	
cis-1,2-Dichloroethene	0.229	0.0100	0.0200	ug/L	1	0.200	ND	115	78-123%	---	---	
trans-1,2-Dichloroethene	0.235	0.0100	0.0200	ug/L	1	0.200	ND	118	75-124%	---	---	
1,2-Dichloropropane	0.246	0.0100	0.0200	ug/L	1	0.200	ND	123	78-122%	---	---	Q-54
cis-1,3-Dichloropropene	0.201	0.0100	0.0200	ug/L	1	0.200	ND	100	75-124%	---	---	
trans-1,3-Dichloropropene	0.207	0.0100	0.0200	ug/L	1	0.200	ND	103	73-127%	---	---	
Methyl tert-butyl ether (MTBE)	0.205	0.0100	0.0200	ug/L	1	0.200	ND	102	71-124%	---	---	
1,1,2,2-Tetrachloroethane	0.225	0.0100	0.0200	ug/L	1	0.200	ND	113	71-121%	---	---	
Tetrachloroethene (PCE)	0.223	0.0100	0.0200	ug/L	1	0.200	ND	111	74-129%	---	---	
1,1,2-Trichloroethane	0.205	0.0100	0.0200	ug/L	1	0.200	ND	102	80-120%	---	---	
Trichloroethene (TCE)	0.229	0.0100	0.0200	ug/L	1	0.200	ND	114	79-123%	---	---	
1,2,3-Trichloropropane	0.234	0.0500	0.100	ug/L	1	0.200	ND	117	73-122%	---	---	
Vinyl chloride	0.290	0.0100	0.0200	ug/L	1	0.200	ND	145	58-137%	---	---	Q-54c
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		93 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031065 - EPA 3510C (Neutral pH)						Water						
Blank (1031065-BLK1)			Prepared: 03/26/21 12:27 Analyzed: 03/29/21 07:59									C-07
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 77 %		Limits: 40-135 %		Dilution: 1x						
LCS (1031065-BS1)			Prepared: 03/26/21 12:27 Analyzed: 03/29/21 08:17									C-07
EPA 8082A												
Aroclor 1016	1.00	0.0100	0.0200	ug/L	1	1.25	---	80	46-129%	---	---	
Aroclor 1260	1.16	0.0100	0.0200	ug/L	1	1.25	---	93	45-134%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 91 %		Limits: 40-135 %		Dilution: 1x						
LCS Dup (1031065-BSD1)			Prepared: 03/26/21 12:27 Analyzed: 03/29/21 08:35									C-07, Q-19
EPA 8082A												
Aroclor 1016	0.926	0.0100	0.0200	ug/L	1	1.25	---	74	46-129%	8	30%	
Aroclor 1260	1.09	0.0100	0.0200	ug/L	1	1.25	---	87	45-134%	7	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 91 %		Limits: 40-135 %		Dilution: 1x						

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030999 - EPA 3510C (Acid Extraction)						Water						
Blank (1030999-BLK2)			Prepared: 03/25/21 10:01		Analyzed: 03/25/21 22:58							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030999 - EPA 3510C (Acid Extraction)						Water						
Blank (1030999-BLK2)			Prepared: 03/25/21 10:01		Analyzed: 03/25/21 22:58							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												Q-41
			Recovery: 74 %	Limits: 44-120 %	Dilution: 1x							
2-Fluorobiphenyl (Surr)			53 %	44-120 %		"						
Phenol-d6 (Surr)			27 %	10-133 %		"						Q-41
p-Terphenyl-d14 (Surr)			104 %	50-134 %		"						
2-Fluorophenol (Surr)			39 %	19-120 %		"						
2,4,6-Tribromophenol (Surr)			74 %	43-140 %		"						
LCS (1030999-BS3)			Prepared: 03/25/21 10:01		Analyzed: 03/25/21 23:33							
EPA 8270E												
Acenaphthene	2.92	0.0200	0.0400	ug/L	2	4.00	---	73	47-122%	---	---	
Acenaphthylene	3.17	0.0200	0.0400	ug/L	2	4.00	---	79	41-130%	---	---	
Anthracene	3.47	0.0200	0.0400	ug/L	2	4.00	---	87	57-123%	---	---	
Benz(a)anthracene	3.65	0.0200	0.0400	ug/L	2	4.00	---	91	58-125%	---	---	
Benzo(a)pyrene	3.67	0.0300	0.0600	ug/L	2	4.00	---	92	54-128%	---	---	
Benzo(b)fluoranthene	3.71	0.0300	0.0600	ug/L	2	4.00	---	93	53-131%	---	---	
Benzo(k)fluoranthene	3.57	0.0300	0.0600	ug/L	2	4.00	---	89	57-129%	---	---	
Benzo(g,h,i)perylene	3.72	0.0200	0.0400	ug/L	2	4.00	---	93	50-134%	---	---	
Chrysene	3.32	0.0200	0.0400	ug/L	2	4.00	---	83	59-123%	---	---	
Dibenz(a,h)anthracene	3.39	0.0200	0.0400	ug/L	2	4.00	---	85	51-134%	---	---	
Fluoranthene	3.58	0.0200	0.0400	ug/L	2	4.00	---	89	57-128%	---	---	
Fluorene	3.23	0.0200	0.0400	ug/L	2	4.00	---	81	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.41	0.0200	0.0400	ug/L	2	4.00	---	85	52-134%	---	---	
1-Methylnaphthalene	2.48	0.0400	0.0800	ug/L	2	4.00	---	62	41-120%	---	---	
2-Methylnaphthalene	2.49	0.0400	0.0800	ug/L	2	4.00	---	62	40-121%	---	---	
Naphthalene	2.35	0.0400	0.0800	ug/L	2	4.00	---	59	40-121%	---	---	

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030999 - EPA 3510C (Acid Extraction)						Water						
LCS (1030999-BS3)			Prepared: 03/25/21 10:01		Analyzed: 03/25/21 23:33							
Phenanthrene	3.27	0.0200	0.0400	ug/L	2	4.00	---	82	59-120%	---	---	
Pyrene	3.44	0.0200	0.0400	ug/L	2	4.00	---	86	57-126%	---	---	
Carbazole	3.93	0.0300	0.0600	ug/L	2	4.00	---	98	60-122%	---	---	
Dibenzofuran	2.97	0.0200	0.0400	ug/L	2	4.00	---	74	53-120%	---	---	
2-Chlorophenol	3.23	0.100	0.200	ug/L	2	4.00	---	81	38-120%	---	---	
4-Chloro-3-methylphenol	3.25	0.200	0.400	ug/L	2	4.00	---	81	52-120%	---	---	
2,4-Dichlorophenol	2.98	0.100	0.200	ug/L	2	4.00	---	74	47-121%	---	---	
2,4-Dimethylphenol	3.23	0.100	0.200	ug/L	2	4.00	---	81	31-124%	---	---	
2,4-Dinitrophenol	2.30	0.500	1.00	ug/L	2	4.00	---	58	23-143%	---	---	Q-31
4,6-Dinitro-2-methylphenol	2.58	0.500	1.00	ug/L	2	4.00	---	65	44-137%	---	---	Q-31
2-Methylphenol	3.15	0.0500	0.100	ug/L	2	4.00	---	79	30-120%	---	---	
3+4-Methylphenol(s)	2.86	0.0500	0.100	ug/L	2	4.00	---	72	29-120%	---	---	
2-Nitrophenol	2.84	0.200	0.400	ug/L	2	4.00	---	71	47-123%	---	---	
4-Nitrophenol	1.24	0.200	0.400	ug/L	2	4.00	---	31	10-120%	---	---	
Pentachlorophenol (PCP)	3.02	0.200	0.400	ug/L	2	4.00	---	75	35-138%	---	---	
Phenol	1.32	0.400	0.800	ug/L	2	4.00	---	33	10-120%	---	---	Q-41
2,3,4,6-Tetrachlorophenol	3.00	0.100	0.200	ug/L	2	4.00	---	75	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.26	0.100	0.200	ug/L	2	4.00	---	82	50-121%	---	---	
2,4,5-Trichlorophenol	3.08	0.100	0.200	ug/L	2	4.00	---	77	53-123%	---	---	
2,4,6-Trichlorophenol	3.15	0.100	0.200	ug/L	2	4.00	---	79	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.68	0.400	0.800	ug/L	2	4.00	---	92	55-135%	---	---	
Butyl benzyl phthalate	4.08	0.400	0.800	ug/L	2	4.00	---	102	53-134%	---	---	
Diethylphthalate	3.53	0.400	0.800	ug/L	2	4.00	---	88	56-125%	---	---	
Dimethylphthalate	3.44	0.400	0.800	ug/L	2	4.00	---	86	45-127%	---	---	
Di-n-butylphthalate	4.07	0.400	0.800	ug/L	2	4.00	---	102	59-127%	---	---	
Di-n-octyl phthalate	4.29	0.400	0.800	ug/L	2	4.00	---	107	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 99 %		Limits: 44-120 %		Dilution: 2x		Q-41				
2-Fluorobiphenyl (Surr)		67 %		44-120 %		"						
Phenol-d6 (Surr)		37 %		10-133 %		"		Q-41				
p-Terphenyl-d14 (Surr)		94 %		50-134 %		"						
2-Fluorophenol (Surr)		52 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		88 %		43-140 %		"						

LCS Dup (1030999-BSD3)

Prepared: 03/25/21 10:01 Analyzed: 03/26/21 18:56

Q-19

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ANALYTICAL REPORT

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1030999 - EPA 3510C (Acid Extraction)							Water					
LCS Dup (1030999-BSD3)			Prepared: 03/25/21 10:01		Analyzed: 03/26/21 18:56		Q-19					
EPA 8270E												
Acenaphthene	3.14	0.0200	0.0400	ug/L	2	4.00	---	78	47-122%	7	30%	
Acenaphthylene	3.38	0.0200	0.0400	ug/L	2	4.00	---	85	41-130%	7	30%	
Anthracene	3.54	0.0200	0.0400	ug/L	2	4.00	---	88	57-123%	2	30%	
Benz(a)anthracene	3.74	0.0200	0.0400	ug/L	2	4.00	---	93	58-125%	2	30%	
Benzo(a)pyrene	3.84	0.0300	0.0600	ug/L	2	4.00	---	96	54-128%	4	30%	
Benzo(b)fluoranthene	3.83	0.0300	0.0600	ug/L	2	4.00	---	96	53-131%	3	30%	
Benzo(k)fluoranthene	3.73	0.0300	0.0600	ug/L	2	4.00	---	93	57-129%	4	30%	
Benzo(g,h,i)perylene	3.78	0.0200	0.0400	ug/L	2	4.00	---	95	50-134%	2	30%	
Chrysene	3.48	0.0200	0.0400	ug/L	2	4.00	---	87	59-123%	5	30%	
Dibenz(a,h)anthracene	3.53	0.0200	0.0400	ug/L	2	4.00	---	88	51-134%	4	30%	
Fluoranthene	3.36	0.0200	0.0400	ug/L	2	4.00	---	84	57-128%	6	30%	
Fluorene	3.23	0.0200	0.0400	ug/L	2	4.00	---	81	52-124%	0.2	30%	
Indeno(1,2,3-cd)pyrene	3.51	0.0200	0.0400	ug/L	2	4.00	---	88	52-134%	3	30%	
1-Methylnaphthalene	2.74	0.0400	0.0800	ug/L	2	4.00	---	68	41-120%	10	30%	
2-Methylnaphthalene	2.71	0.0400	0.0800	ug/L	2	4.00	---	68	40-121%	8	30%	
Naphthalene	2.54	0.0400	0.0800	ug/L	2	4.00	---	63	40-121%	8	30%	
Phenanthrene	3.39	0.0200	0.0400	ug/L	2	4.00	---	85	59-120%	3	30%	
Pyrene	3.26	0.0200	0.0400	ug/L	2	4.00	---	82	57-126%	5	30%	
Carbazole	3.68	0.0300	0.0600	ug/L	2	4.00	---	92	60-122%	7	30%	
Dibenzofuran	3.04	0.0200	0.0400	ug/L	2	4.00	---	76	53-120%	2	30%	
Bis(2-ethylhexyl)phthalate	4.02	0.400	0.800	ug/L	2	4.00	---	101	55-135%	9	30%	
Butyl benzyl phthalate	4.41	0.400	0.800	ug/L	2	4.00	---	110	53-134%	8	30%	
Diethylphthalate	3.59	0.400	0.800	ug/L	2	4.00	---	90	56-125%	2	30%	
Dimethylphthalate	3.47	0.400	0.800	ug/L	2	4.00	---	87	45-127%	1	30%	
Di-n-butylphthalate	4.08	0.400	0.800	ug/L	2	4.00	---	102	59-127%	0.2	30%	
Di-n-octyl phthalate	4.70	0.400	0.800	ug/L	2	4.00	---	117	51-140%	9	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 102 %		Limits: 44-120 %		Dilution: 2x		Q-41				
2-Fluorobiphenyl (Surr)		71 %		44-120 %		"						
Phenol-d6 (Surr)		36 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		101 %		50-134 %		"						
2-Fluorophenol (Surr)		53 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		95 %		43-140 %		"						

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031154 - EPA 3015A						Water						
Blank (1031154-BLK1)			Prepared: 03/30/21 08:57 Analyzed: 03/30/21 19:17									
EPA 200.8												
Chromium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
LCS (1031154-BS1)			Prepared: 03/30/21 08:57 Analyzed: 03/30/21 19:22									
EPA 200.8												
Chromium	55.5	0.500	1.00	ug/L	1	55.6	---	100	85-115%	---	---	
Mercury	1.09	0.0400	0.0800	ug/L	1	1.11	---	98	85-115%	---	---	
Zinc	55.5	2.00	4.00	ug/L	1	55.6	---	100	85-115%	---	---	
Duplicate (1031154-DUP1)			Prepared: 03/30/21 08:57 Analyzed: 03/30/21 19:48									
QC Source Sample: Non-SDG (A1C0727-02)												
Chromium	2.27	0.500	1.00	ug/L	1	---	2.29	---	---	0.6	20%	
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Zinc	137	2.00	4.00	ug/L	1	---	138	---	---	1	20%	
Matrix Spike (1031154-MS1)			Prepared: 03/30/21 08:57 Analyzed: 03/30/21 19:53									
QC Source Sample: Non-SDG (A1C0727-02)												
EPA 200.8												
Chromium	58.4	0.500	1.00	ug/L	1	55.6	2.29	101	70-130%	---	---	
Mercury	1.07	0.0400	0.0800	ug/L	1	1.11	ND	97	70-130%	---	---	
Zinc	195	2.00	4.00	ug/L	1	55.6	138	102	70-130%	---	---	
Matrix Spike (1031154-MS2)			Prepared: 03/30/21 08:57 Analyzed: 03/30/21 20:13									
QC Source Sample: Non-SDG (A1C0749-01)												
EPA 200.8												
Chromium	57.1	0.500	1.00	ug/L	1	55.6	ND	103	70-130%	---	---	
Mercury	1.11	0.0400	0.0800	ug/L	1	1.11	ND	100	70-130%	---	---	
Zinc	99.0	2.00	4.00	ug/L	1	55.6	43.4	100	70-130%	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C0750 - 04 21 21 2038

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040504 - EPA 3015A						Water						
Blank (1040504-BLK1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 15:50									
EPA 200.8-LL												
Arsenic	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.00900	0.0180	ug/L	1	---	---	---	---	---	---	
LCS (1040504-BS1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 15:57									
EPA 200.8-LL												
Arsenic	5.75	0.0500	0.100	ug/L	1	5.56	---	103	85-115%	---	---	
Cadmium	5.72	0.00900	0.0180	ug/L	1	5.56	---	103	85-115%	---	---	
Duplicate (1040504-DUP1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 16:32									
QC Source Sample: Non-SDG (A1C1109-01)												
Arsenic	0.124	0.0500	0.100	ug/L	1	---	0.143	---	---	15	20%	
Duplicate (1040504-DUP2)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 20:26									
QC Source Sample: Non-SDG (A1C1109-01RE1)												
Cadmium	0.0316	0.00900	0.0180	ug/L	1	---	0.0379	---	---	18	20%	Q-16
Matrix Spike (1040504-MS1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 16:39									
QC Source Sample: Non-SDG (A1C1109-01)												
EPA 200.8-LL												
Arsenic	6.03	0.0500	0.100	ug/L	1	5.56	0.143	106	70-130%	---	---	
Matrix Spike (1040504-MS2)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 20:32									
QC Source Sample: Non-SDG (A1C1109-01RE1)												
EPA 200.8-LL												
Cadmium	5.53	0.00900	0.0180	ug/L	1	5.56	0.0379	99	70-130%	---	---	Q-16

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1030960							
A1C0750-01	Water	NWTPH-Dx	03/18/21 08:42	03/24/21 13:23	910mL/5mL	1000mL/5mL	1.10
A1C0750-02	Water	NWTPH-Dx	03/18/21 08:48	03/24/21 13:23	850mL/5mL	1000mL/5mL	1.18
A1C0750-03	Water	NWTPH-Dx	03/18/21 09:00	03/24/21 13:23	1040mL/5mL	1000mL/5mL	0.96

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1030808							
A1C0750-01	Water	NWTPH-Gx (MS)	03/18/21 08:42	03/22/21 07:50	5mL/5mL	5mL/5mL	1.00
A1C0750-02	Water	NWTPH-Gx (MS)	03/18/21 08:48	03/22/21 07:50	5mL/5mL	5mL/5mL	1.00
A1C0750-03	Water	NWTPH-Gx (MS)	03/18/21 09:00	03/22/21 07:50	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1030808							
A1C0750-01	Water	EPA 8260D	03/18/21 08:42	03/22/21 07:50	5mL/5mL	5mL/5mL	1.00
A1C0750-02	Water	EPA 8260D	03/18/21 08:48	03/22/21 07:50	5mL/5mL	5mL/5mL	1.00
A1C0750-03	Water	EPA 8260D	03/18/21 09:00	03/22/21 07:50	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1031037							
A1C0750-01	Water	EPA 8260D SIM	03/18/21 08:42	03/26/21 11:14	5mL/5mL	5mL/5mL	1.00
A1C0750-02	Water	EPA 8260D SIM	03/18/21 08:48	03/26/21 11:14	5mL/5mL	5mL/5mL	1.00
A1C0750-03	Water	EPA 8260D SIM	03/18/21 09:00	03/26/21 11:14	5mL/5mL	5mL/5mL	1.00
A1C0750-04	Water	EPA 8260D SIM	03/18/21 00:00	03/26/21 11:14	5mL/5mL	5mL/5mL	1.00
A1C0750-05	Water	EPA 8260D SIM	03/18/21 00:00	03/26/21 11:14	5mL/5mL	5mL/5mL	1.00
A1C0750-06	Water	EPA 8260D SIM	03/18/21 00:00	03/26/21 11:14	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls by EPA 8082A

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C0750 - 04 21 21 2038****SAMPLE PREPARATION INFORMATION****Polychlorinated Biphenyls by EPA 8082A****Prep: EPA 3510C (Neutral pH)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1031065							
A1C0750-01	Water	EPA 8082A	03/18/21 08:42	03/26/21 12:27	810mL/1mL	1000mL/1mL	1.23
A1C0750-02	Water	EPA 8082A	03/18/21 08:48	03/26/21 12:27	940mL/1mL	1000mL/1mL	1.06
A1C0750-03	Water	EPA 8082A	03/18/21 09:00	03/26/21 12:27	1050mL/1mL	1000mL/1mL	0.95

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1030999							
A1C0750-01RE1	Water	EPA 8270E	03/18/21 08:42	03/25/21 10:01	910mL/1mL	1000mL/1mL	1.10
A1C0750-02RE1	Water	EPA 8270E	03/18/21 08:48	03/25/21 10:01	870mL/1mL	1000mL/1mL	1.15
A1C0750-03RE1	Water	EPA 8270E	03/18/21 09:00	03/25/21 15:03	1070mL/1mL	1000mL/1mL	0.94

Total Metals by EPA 200.8 (ICPMS)**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1031154							
A1C0750-01	Water	EPA 200.8	03/18/21 08:42	03/30/21 08:57	45mL/50mL	45mL/50mL	1.00
A1C0750-02	Water	EPA 200.8	03/18/21 08:48	03/30/21 08:57	45mL/50mL	45mL/50mL	1.00
A1C0750-03	Water	EPA 200.8	03/18/21 09:00	03/30/21 08:57	45mL/50mL	45mL/50mL	1.00

Total Metals by EPA 200.8 (ICPMS) - Low Level**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1040504							
A1C0750-01	Water	EPA 200.8-LL	03/18/21 08:42	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C0750-01RE2	Water	EPA 200.8-LL	03/18/21 08:42	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C0750-02	Water	EPA 200.8-LL	03/18/21 08:48	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C0750-02RE1	Water	EPA 200.8-LL	03/18/21 08:48	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C0750-03	Water	EPA 200.8-LL	03/18/21 09:00	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart**

Report ID:
A1C0750 - 04 21 21 2038

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- F-15** Results for diesel are estimated due to overlap from the reported oil result.
- F-16** Results for oil are estimated due to overlap from the reported diesel result.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +16%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +21%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -16%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.

Apex Laboratories

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C0750 - 04 21 21 2038

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C0750 - 04 21 21 2038

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323
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9450 SW Commerce Circle
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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C0750 - 04 21 21 2038

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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APEX LABS		CHAIN OF CUSTODY		Lab # A1C0750 COC 1 of 1	
Company: GeoDesign, Inc.		Project Mgr: Kyle Haggart		Project Name: Former Automatic Vending Co.	
Address: 9450 SW Commerce Circle, Wilsonville, OR		Phone: 503 968 8787		Email: kyle.haggart@NV5.com	
Sampled by: Tim Hainley / Kyle Haggart		Project #: BCSAmerica-1-02		PO #	
ANALYSIS REQUEST					
Site Location: OR WA CA	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS
AK ID					
SAMPLE ID					
SW-1 (031821)	3/18/21	8:42	SW	14	
SW-1-DHP (031821)		8:48	SW	14	
SW-2 (031821)		9:00	SW	14	
SW-1-TB (031821)			W	1	
SW-1-DHP-TB (031821)			W	1	
SW-2-TB (031821)			W	1	
SPECIAL INSTRUCTIONS: Low levels as discussed. Thank you!					
Normal Turn Around Time (TAT) 10 Business Days					
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other:					
SAMPLES ARE HELD FOR 30 DAYS					
RELINQUISHED BY:	Signature:	Date:	Signature:	Date:	Signature:
Tim Hainley	3/18/21	Tim Hainley	3/18/21	Tim Hainley	3/18/21
Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Tim Hainley	Tim Hainley	Tim Hainley	Tim Hainley	Tim Hainley	Tim Hainley
Company:	Company:	Company:	Company:	Company:	Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C0750 - 04 21 21 2038

APEX LABS COOLER RECEIPT FORM

Client: GeoDesign, Inc Element WO#: A1C0750Project/Project #: Former Automatic Vending Co. / BCS America-1-02

Delivery Info:

Date/time received: 3/18/21 @ 17:45 By: THYDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 3/18/21 @ 17:45 By: THYChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>4.6</u>	<u>5.3</u>	<u>3.1</u>				
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Temp. blanks? (Y/N)	<u>N</u>	<u>N</u>	<u>N</u>				
Ice type: (Gel/Real/Other)	<u>Gel</u>	<u>Gel</u>	<u>Gel</u>				
Condition:	<u>good</u>	<u>good</u>	<u>good</u>				

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 3-19-21 @ 11:30 By: THYAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☒ No ☒ Comments: THY 3-19-21 TB # 2696, no T on nitric SW-1(031821) and SW-1-DUP(031821), T on SW-1(031821) reads 843COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information: SW-2-TB(031821) reads SW-1-TB(031821) bagged w/ SW-2(031821)

Labeled by:

Witness:

Cooler Inspected by: AKK THY 3/18-21

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-54631-1
Client Project/Site: A1C0750

For:

Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Philip Nerenberg



Authorized for release by:
3/30/2021 5:10:37 PM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Job ID: 570-54631-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-54631-1

Comments

No additional comments.

Receipt

The samples were received on 3/23/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7° C.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Client Sample ID: SW-1(031821)

Lab Sample ID: 570-54631-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monobutyltin	79		3.4	2.7	ng/L	1		Organotins SIM	Total/NA

Client Sample ID: SW-1-DUP(031821)

Lab Sample ID: 570-54631-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monobutyltin	81		3.3	2.6	ng/L	1		Organotins SIM	Total/NA

Client Sample ID: SW-2(031821)

Lab Sample ID: 570-54631-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monobutyltin	150		2.9	2.3	ng/L	1		Organotins SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Client Sample ID: SW-1(031821)

Date Collected: 03/18/21 08:42

Date Received: 03/23/21 10:30

Lab Sample ID: 570-54631-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.4	2.2	ng/L		03/24/21 22:35	03/26/21 19:01	1
Tributyltin	ND		3.4	1.6	ng/L		03/24/21 22:35	03/26/21 19:01	1
Dibutyltin	ND		3.4	2.0	ng/L		03/24/21 22:35	03/26/21 19:01	1
Monobutyltin	79		3.4	2.7	ng/L		03/24/21 22:35	03/26/21 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	56		10 - 120	03/24/21 22:35	03/26/21 19:01	1

Client Sample ID: SW-1-DUP(031821)

Date Collected: 03/18/21 08:48

Date Received: 03/23/21 10:30

Lab Sample ID: 570-54631-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.3	2.1	ng/L		03/24/21 22:35	03/26/21 19:19	1
Tributyltin	ND		3.3	1.5	ng/L		03/24/21 22:35	03/26/21 19:19	1
Dibutyltin	ND		3.3	1.9	ng/L		03/24/21 22:35	03/26/21 19:19	1
Monobutyltin	81		3.3	2.6	ng/L		03/24/21 22:35	03/26/21 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	61		10 - 120	03/24/21 22:35	03/26/21 19:19	1

Client Sample ID: SW-2(031821)

Date Collected: 03/18/21 09:00

Date Received: 03/23/21 10:30

Lab Sample ID: 570-54631-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		2.9	1.9	ng/L		03/24/21 22:35	03/26/21 19:36	1
Tributyltin	ND		2.9	1.3	ng/L		03/24/21 22:35	03/26/21 19:36	1
Dibutyltin	ND		2.9	1.7	ng/L		03/24/21 22:35	03/26/21 19:36	1
Monobutyltin	150		2.9	2.3	ng/L		03/24/21 22:35	03/26/21 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	61		10 - 120	03/24/21 22:35	03/26/21 19:36	1

Surrogate Summary

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
570-54631-1	SW-1(031821)	56
570-54631-2	SW-1-DUP(031821)	61
570-54631-3	SW-2(031821)	61
LCS 570-138495/2-A	Lab Control Sample	42
LCSD 570-138495/3-A	Lab Control Sample Dup	69
MB 570-138495/1-A	Method Blank	64

Surrogate Legend

TPTT = Triphenyltin

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-138495/1-A

Matrix: Water

Analysis Batch: 138972

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 138495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	1.9	ng/L		03/24/21 22:35	03/26/21 16:04	1
Tributyltin	ND		3.0	1.4	ng/L		03/24/21 22:35	03/26/21 16:04	1
Dibutyltin	ND		3.0	1.8	ng/L		03/24/21 22:35	03/26/21 16:04	1
Monobutyltin	ND		3.0	2.4	ng/L		03/24/21 22:35	03/26/21 16:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	64		10 - 120	03/24/21 22:35	03/26/21 16:04	1

Lab Sample ID: LCS 570-138495/2-A

Matrix: Water

Analysis Batch: 138972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrabutyltin	200	158.5		ng/L		79	21 - 124
Tributyltin	200	111.7		ng/L		56	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tripentyltin	42		10 - 120

Lab Sample ID: LCSD 570-138495/3-A

Matrix: Water

Analysis Batch: 138972

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 138495

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrabutyltin	200	189.2		ng/L		95	21 - 124	18	30
Tributyltin	200	141.9		ng/L		71	10 - 120	24	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tripentyltin	69		10 - 120

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

GC/MS Semi VOA

Prep Batch: 138495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-54631-1	SW-1(031821)	Total/NA	Water	Organotin	
570-54631-2	SW-1-DUP(031821)	Total/NA	Water	Organotin	
570-54631-3	SW-2(031821)	Total/NA	Water	Organotin	
MB 570-138495/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-138495/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-138495/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

Analysis Batch: 138972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-54631-1	SW-1(031821)	Total/NA	Water	Organotins SIM	138495
570-54631-2	SW-1-DUP(031821)	Total/NA	Water	Organotins SIM	138495
570-54631-3	SW-2(031821)	Total/NA	Water	Organotins SIM	138495
MB 570-138495/1-A	Method Blank	Total/NA	Water	Organotins SIM	138495
LCS 570-138495/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	138495
LCSD 570-138495/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	138495

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Client Sample ID: SW-1(031821)

Date Collected: 03/18/21 08:42

Date Received: 03/23/21 10:30

Lab Sample ID: 570-54631-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			871.3 mL	1 mL	138495	03/24/21 22:35	OM8W	ECL 1
Total/NA	Analysis	Organotins SIM		1			138972	03/26/21 19:01	AJ2Q	ECL 1
Instrument ID: GCMSY										

Client Sample ID: SW-1-DUP(031821)

Date Collected: 03/18/21 08:48

Date Received: 03/23/21 10:30

Lab Sample ID: 570-54631-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			913.5 mL	1 mL	138495	03/24/21 22:35	OM8W	ECL 1
Total/NA	Analysis	Organotins SIM		1			138972	03/26/21 19:19	AJ2Q	ECL 1
Instrument ID: GCMSY										

Client Sample ID: SW-2(031821)

Date Collected: 03/18/21 09:00

Date Received: 03/23/21 10:30

Lab Sample ID: 570-54631-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1030.7 mL	1 mL	138495	03/24/21 22:35	OM8W	ECL 1
Total/NA	Analysis	Organotins SIM		1			138972	03/26/21 19:36	AJ2Q	ECL 1
Instrument ID: GCMSY										

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	CA300001	01-30-22
Washington	State	C916-18	10-11-21

1

2

3

4

5

6

7

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11

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15

Method Summary

Client: Apex Laboratories LLC
Project/Site: A1C0750

Job ID: 570-54631-1

Method	Method Description	Protocol	Laboratory
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	ECL 1
Organotin	Extraction (Organotins)	WRC	ECL 1

Protocol References:

Lab SOP = Laboratory Standard Operating Procedure

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A1C0750

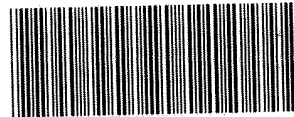
Job ID: 570-54631-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-54631-1	SW-1(031821)	Water	03/18/21 08:42	03/23/21 10:30	
570-54631-2	SW-1-DUP(031821)	Water	03/18/21 08:48	03/23/21 10:30	
570-54631-3	SW-2(031821)	Water	03/18/21 09:00	03/23/21 10:30	

54671

SUBCONTRACT ORDER

Apex Laboratories



570-54631 Chain of Custody

03/31/21 A1C0750

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone : (714) 895-5494
Fax: (714) 894-7501

AKC 3/22/21

Sample Name: SW-1(031821) **Water** **Sampled:** 03/18/21 08:42 **No T on nitric poly, T on Cont reads 843** (A1C0750-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub) <i>Containers Supplied:</i> (M)1 L Amber Glass - Non Preserved (N)1 L Amber Glass - Non Preserved	03/31/21 17:00	04/01/21 08:42	

Sample Name: SW-1-DUP(031821) **Water** **Sampled:** 03/18/21 08:48 **No T on nitric poly** (A1C0750-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub) <i>Containers Supplied:</i> (M)1 L Amber Glass - Non Preserved (N)1 L Amber Glass - Non Preserved	03/31/21 17:00	04/01/21 08:48	

Sample Name: SW-2(031821) **Water** **Sampled:** 03/18/21 09:00 (A1C0750-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub) <i>Containers Supplied:</i> (M)1 L Amber Glass - Non Preserved (N)1 L Amber Glass - Non Preserved	03/31/21 17:00	04/01/21 09:00	

Standard TBT

Released By [Signature] Date 3/22/21 Received By [Signature] Date 3/23/21 10:30
Released By [Signature] Date 3/23/21 Received By [Signature] Date 3/30/21

Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-54631-1

Login Number: 54631

List Number: 1

Creator: Ramos, Maribel

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

April 16, 2021

Mr. Philip Nerenberg
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: DXN & PCB Subcontract
Work Order: 17896
SDG: A1C0750

Dear Mr. Nerenberg:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 24, 2021. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Enclosures

SUBCONTRACT ORDER

Apex Laboratories

A1C0750

CFA WO#17896

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone: (910) 795-0421
Fax: -

No T on nitric poly, T on Cont reads 843

Sample Name: SW-1(031821)

Water

Sampled: 03/18/21 08:42

(A1C0750-01)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	03/31/21 17:00	09/14/21 08:42	
Containers Supplied:			
(K)1 L Amber Glass - Non Preserved			
(L)1 L Amber Glass - Non Preserved			

No T on nitric poly

Sample Name: SW-1-DUP(031821)

Water

Sampled: 03/18/21 08:48

(A1C0750-02)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	03/31/21 17:00	09/14/21 08:48	
Containers Supplied:			
(K)1 L Amber Glass - Non Preserved			
(L)1 L Amber Glass - Non Preserved			

Sample Name: SW-2(031821)

Water

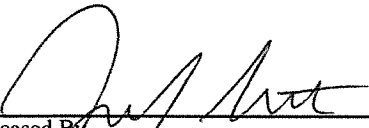
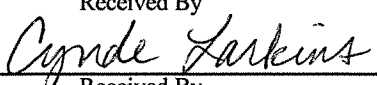
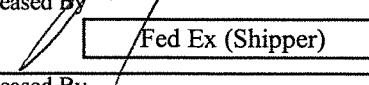
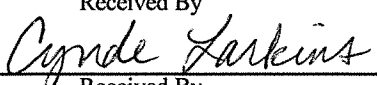
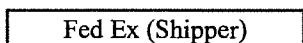
Sampled: 03/18/21 09:00

(A1C0750-03)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	03/31/21 17:00	09/14/21 09:00	
Containers Supplied:			
(K)1 L Amber Glass - Non Preserved			
(L)1 L Amber Glass - Non Preserved			

Standard TAT

Temp. = 1.7°C

Released By:  Date: 3/22/21
Received By:  Date: 24 MAR 21 @ 1023
Released By:  Date:
Received By:  Date:
Fed Ex (Shipper)  Fed Ex (Shipper)

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: APEX	Work Order: 17896
Shipping Company: FedEx	Date/Time Received: MAR 24, 2021 1023

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?		<input checked="" type="checkbox"/>	
Samples < 2x background?		<input checked="" type="checkbox"/>	

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?			<input checked="" type="checkbox"/>	Seal intact? Yes No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags (loose ice) blue ice dry ice none other (describe) Temperature Blank present: Yes No 1.6° + 0.1 = 1.7°C
5 Aqueous samples found to have visible solids?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: Minimal visible solids (<1%) in all
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample IDs, containers affected and pH observed: pH = 7 on all If preservative added, Lot#:
7 Samples requiring preservation have no residual chlorine?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: If preservative added, Lot#:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			List type and number of containers / Sample IDs, containers affected: 2-1L NMAG bottles per sample. 6 total
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A1C0750
Work Order 17896**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Liquids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3520C
Analytical Batch Number: 46547
Clean Up Batch Number: 46545
Extraction Batch Number: 46544

Sample Analysis

Samples were received within temperature requirements at 1.7°C (17896001, 17896002, and 17896003). The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12029049	Method Blank (MB)
12029050	Laboratory Control Sample (LCS)
12029051	Laboratory Control Sample Duplicate (LCSD)
17896001	SW-1(031821)
17896002	SW-1-DUP(031821)
17896003	SW-2(031821)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 20.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP750_2	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A1C0750 CFA Work Order: 17896

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature:



Name: Alexis Finks

Date: 16 APR 2021

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C0750
Lab Sample ID: 17896001
Client Sample: 1613B Water
Client ID: SW-1(031821)
Batch ID: 46547
Run Date: 04/13/2021 00:06
Data File: A10APR21A_7-4
Prep Batch: 46544
Prep Date: 08-APR-21

Client: APEX001
Date Collected: 03/18/2021 08:42
Date Received: 03/24/2021 10:23

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 908.5 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.944	pg/L	0.944	11.0
40321-76-4	1,2,3,7,8-PeCDD	U	0.735	pg/L	0.735	55.0
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.28	pg/L	1.28	55.0
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.24	pg/L	1.24	55.0
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.28	pg/L	1.28	55.0
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	3.90	pg/L	2.55	55.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD	BJ	24.9	pg/L	3.32	110
51207-31-9	2,3,7,8-TCDF	U	0.988	pg/L	0.988	11.0
57117-41-6	1,2,3,7,8-PeCDF	BJK	0.925	pg/L	0.619	55.0
57117-31-4	2,3,4,7,8-PeCDF	BJK	1.12	pg/L	0.594	55.0
70648-26-9	1,2,3,4,7,8-HxCDF	U	0.526	pg/L	0.526	55.0
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.561	pg/L	0.561	55.0
60851-34-5	2,3,4,6,7,8-HxCDF	BJK	0.748	pg/L	0.553	55.0
72918-21-9	1,2,3,7,8,9-HxCDF	BJ	1.10	pg/L	0.843	55.0
67562-39-4	1,2,3,4,6,7,8-HpCDF	BJ	1.45	pg/L	0.744	55.0
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	1.09	pg/L	1.09	55.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF	BJK	2.64	pg/L	2.22	110
41903-57-5	Total TeCDD	U	0.944	pg/L	0.944	11.0
36088-22-9	Total PeCDD	U	0.735	pg/L	0.735	55.0
34465-46-8	Total HxCDD	BJK	6.32	pg/L	1.24	55.0
37871-00-4	Total HpCDD	JK	8.89	pg/L	2.55	55.0
30402-14-3	Total TeCDF	U	0.988	pg/L	0.988	11.0
30402-15-4	Total PeCDF	BJK	2.42	pg/L	0.365	55.0
55684-94-1	Total HxCDF	BJK	1.85	pg/L	0.526	55.0
38998-75-3	Total HpCDF	BJ	1.45	pg/L	0.744	55.0
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.611	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		1.75	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1590	2200	pg/L	72.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		1610	2200	pg/L	73.2	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1410	2200	pg/L	64.1	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1580	2200	pg/L	71.7	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1740	2200	pg/L	79.2	(23%-140%)
13C-OCDD		3080	4400	pg/L	70.0	(17%-157%)
13C-2,3,7,8-TCDF		1600	2200	pg/L	72.7	(24%-169%)
13C-1,2,3,7,8-PeCDF		1660	2200	pg/L	75.3	(24%-185%)
13C-2,3,4,7,8-PeCDF		1640	2200	pg/L	74.4	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1480	2200	pg/L	67.3	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1590	2200	pg/L	72.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1560	2200	pg/L	71.0	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1590	2200	pg/L	72.2	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1C0750	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17896001	Date Collected:	03/18/2021 08:42	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	03/24/2021 10:23		
Client ID:	SW-1(031821)			Prep Basis:	As Received
Batch ID:	46547	Method:	EPA Method 1613B		
Run Date:	04/13/2021 00:06	Analyst:	CLP	Instrument:	HRP750
Data File:	A10APR21A_7-4			Dilution:	1
Prep Batch:	46544	Prep Method:	SW846 3520C		
Prep Date:	08-APR-21	Prep Aliquot:	908.5 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1620	2200	pg/L	73.4	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1620	2200	pg/L	73.4	(26%-138%)
37Cl-2,3,7,8-TCDD			178	220	pg/L	81.0	(35%-197%)

Comments:

- B** The target analyte was detected in the associated blank.
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C0750
Lab Sample ID: 17896002
Client Sample: 1613B Water
Client ID: SW-1-DUP(031821)
Batch ID: 46547
Run Date: 04/13/2021 00:56
Data File: A10APR21A_7-5
Prep Batch: 46544
Prep Date: 08-APR-21

Client: APEX001
Date Collected: 03/18/2021 08:48
Date Received: 03/24/2021 10:23

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 969.8 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.46	pg/L	1.46	10.3
40321-76-4	1,2,3,7,8-PeCDD	U	1.53	pg/L	1.53	51.6
39227-28-6	1,2,3,4,7,8-HxCDD	U	2.10	pg/L	2.10	51.6
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.87	pg/L	1.87	51.6
19408-74-3	1,2,3,7,8,9-HxCDD	U	2.00	pg/L	2.00	51.6
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	13.2	pg/L	3.82	51.6
3268-87-9	1,2,3,4,6,7,8,9-OCDD		161	pg/L	7.69	103
51207-31-9	2,3,7,8-TCDF	U	1.68	pg/L	1.68	10.3
57117-41-6	1,2,3,7,8-PeCDF	U	0.860	pg/L	0.860	51.6
57117-31-4	2,3,4,7,8-PeCDF	U	0.788	pg/L	0.788	51.6
70648-26-9	1,2,3,4,7,8-HxCDF	U	0.930	pg/L	0.930	51.6
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.909	pg/L	0.909	51.6
60851-34-5	2,3,4,6,7,8-HxCDF	U	0.947	pg/L	0.947	51.6
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.46	pg/L	1.46	51.6
67562-39-4	1,2,3,4,6,7,8-HpCDF	BJK	1.81	pg/L	1.04	51.6
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	1.53	pg/L	1.53	51.6
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	3.44	pg/L	3.44	103
41903-57-5	Total TeCDD	JK	2.29	pg/L	1.46	10.3
36088-22-9	Total PeCDD	U	1.53	pg/L	1.53	51.6
34465-46-8	Total HxCDD	BJK	13.1	pg/L	1.87	51.6
37871-00-4	Total HpCDD	JK	31.7	pg/L	3.82	51.6
30402-14-3	Total TeCDF	U	1.68	pg/L	1.68	10.3
30402-15-4	Total PeCDF	U	0.641	pg/L	0.641	51.6
55684-94-1	Total HxCDF	BJK	1.05	pg/L	0.909	51.6
38998-75-3	Total HpCDF	BJK	1.81	pg/L	1.04	51.6
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.198	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.43	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1300	2060	pg/L	63.3	(25%-164%)
13C-1,2,3,7,8-PeCDD		1260	2060	pg/L	60.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1110	2060	pg/L	53.7	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1380	2060	pg/L	67.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1380	2060	pg/L	66.9	(23%-140%)
13C-OCDD		2410	4120	pg/L	58.5	(17%-157%)
13C-2,3,7,8-TCDF		1310	2060	pg/L	63.4	(24%-169%)
13C-1,2,3,7,8-PeCDF		1310	2060	pg/L	63.5	(24%-185%)
13C-2,3,4,7,8-PeCDF		1250	2060	pg/L	60.6	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1250	2060	pg/L	60.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1360	2060	pg/L	65.8	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1350	2060	pg/L	65.3	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1240	2060	pg/L	60.3	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A1C0750	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17896002	Date Collected:	03/18/2021 08:48	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	03/24/2021 10:23		
Client ID:	SW-1-DUP(031821)			Prep Basis:	As Received
Batch ID:	46547	Method:	EPA Method 1613B		
Run Date:	04/13/2021 00:56	Analyst:	CLP	Instrument:	HRP750
Data File:	A10APR21A_7-5			Dilution:	1
Prep Batch:	46544	Prep Method:	SW846 3520C		
Prep Date:	08-APR-21	Prep Aliquot:	969.8 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1330	2060	pg/L	64.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1260	2060	pg/L	61.1	(26%-138%)
37Cl-2,3,7,8-TCDD			157	206	pg/L	76.3	(35%-197%)

Comments:

- B** The target analyte was detected in the associated blank.
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C0750
Lab Sample ID: 17896003
Client Sample: 1613B Water
Client ID: SW-2(031821)
Batch ID: 46547
Run Date: 04/13/2021 01:46
Data File: A10APR21A_7-6
Prep Batch: 46544
Prep Date: 08-APR-21

Client: APEX001
Date Collected: 03/18/2021 09:00
Date Received: 03/24/2021 10:23

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 1036.9 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.961	pg/L	0.961	9.64
40321-76-4	1,2,3,7,8-PeCDD	U	1.08	pg/L	1.08	48.2
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.80	pg/L	1.80	48.2
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.71	pg/L	1.71	48.2
19408-74-3	1,2,3,7,8,9-HxCDD	JK	2.04	pg/L	1.77	48.2
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	44.5	pg/L	5.38	48.2
3268-87-9	1,2,3,4,6,7,8,9-OCDD		807	pg/L	10.2	96.4
51207-31-9	2,3,7,8-TCDF	U	1.07	pg/L	1.07	9.64
57117-41-6	1,2,3,7,8-PeCDF	U	0.729	pg/L	0.729	48.2
57117-31-4	2,3,4,7,8-PeCDF	U	0.648	pg/L	0.648	48.2
70648-26-9	1,2,3,4,7,8-HxCDF	U	0.548	pg/L	0.548	48.2
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.525	pg/L	0.525	48.2
60851-34-5	2,3,4,6,7,8-HxCDF	U	0.538	pg/L	0.538	48.2
72918-21-9	1,2,3,7,8,9-HxCDF	U	0.799	pg/L	0.799	48.2
67562-39-4	1,2,3,4,6,7,8-HpCDF	BJK	1.20	pg/L	0.785	48.2
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	1.22	pg/L	1.22	48.2
39001-02-0	1,2,3,4,6,7,8,9-OCDF	BJK	4.11	pg/L	2.58	96.4
41903-57-5	Total TeCDD	U	0.961	pg/L	0.961	9.64
36088-22-9	Total PeCDD	BJK	1.83	pg/L	1.08	48.2
34465-46-8	Total HxCDD	BJK	19.5	pg/L	1.71	48.2
37871-00-4	Total HpCDD	J	108	pg/L	5.38	48.2
30402-14-3	Total TeCDF	U	1.07	pg/L	1.07	9.64
30402-15-4	Total PeCDF	BJ	0.772	pg/L	0.397	48.2
55684-94-1	Total HxCDF	BJK	1.89	pg/L	0.525	48.2
38998-75-3	Total HpCDF	BJK	4.86	pg/L	0.785	48.2
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.905	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.39	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1460	1930	pg/L	75.7	(25%-164%)
13C-1,2,3,7,8-PeCDD		1400	1930	pg/L	72.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1170	1930	pg/L	60.7	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1440	1930	pg/L	74.9	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1470	1930	pg/L	76.2	(23%-140%)
13C-OCDD		2480	3860	pg/L	64.3	(17%-157%)
13C-2,3,7,8-TCDF		1480	1930	pg/L	76.7	(24%-169%)
13C-1,2,3,7,8-PeCDF		1520	1930	pg/L	78.8	(24%-185%)
13C-2,3,4,7,8-PeCDF		1500	1930	pg/L	77.5	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1290	1930	pg/L	66.7	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1400	1930	pg/L	72.6	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1400	1930	pg/L	72.8	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1410	1930	pg/L	72.9	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1C0750	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17896003	Date Collected:	03/18/2021 09:00	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	03/24/2021 10:23		
Client ID:	SW-2(031821)			Prep Basis:	As Received
Batch ID:	46547	Method:	EPA Method 1613B		
Run Date:	04/13/2021 01:46	Analyst:	CLP	Instrument:	HRP750
Data File:	A10APR21A_7-6			Dilution:	1
Prep Batch:	46544	Prep Method:	SW846 3520C		
Prep Date:	08-APR-21	Prep Aliquot:	1036.9 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1410	1930	pg/L	73.0	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1420	1930	pg/L	73.8	(26%-138%)
37Cl-2,3,7,8-TCDD			164	193	pg/L	84.8	(35%-197%)

Comments:

- B** The target analyte was detected in the associated blank.
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans Surrogate Recovery Report

SDG Number: A1C0750

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12029050	LCS for batch 46544	13C-2,3,7,8-TCDD		86.3	(20%-175%)
		13C-1,2,3,7,8-PeCDD		88.4	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		72.7	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		83.0	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		88.7	(22%-166%)
		13C-OCDD		74.7	(13%-199%)
		13C-2,3,7,8-TCDF		84.7	(22%-152%)
		13C-1,2,3,7,8-PeCDF		91.2	(21%-192%)
		13C-2,3,4,7,8-PeCDF		90.4	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		76.3	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		80.8	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		80.0	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		79.8	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		81.0	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		80.9	(20%-186%)
		37Cl-2,3,7,8-TCDD		89.2	(31%-191%)
12029051	LCSD for batch 46544	13C-2,3,7,8-TCDD		76.1	(20%-175%)
		13C-1,2,3,7,8-PeCDD		80.8	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		69.4	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		79.3	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		86.5	(22%-166%)
		13C-OCDD		78.6	(13%-199%)
		13C-2,3,7,8-TCDF		79.0	(22%-152%)
		13C-1,2,3,7,8-PeCDF		83.1	(21%-192%)
		13C-2,3,4,7,8-PeCDF		81.4	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		73.8	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		80.2	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		76.1	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		79.3	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		77.5	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		81.0	(20%-186%)
		37Cl-2,3,7,8-TCDD		78.4	(31%-191%)
12029049	MB for batch 46544	13C-2,3,7,8-TCDD		84.8	(25%-164%)
		13C-1,2,3,7,8-PeCDD		82.4	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		68.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		77.7	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		85.1	(23%-140%)
		13C-OCDD		75.2	(17%-157%)
		13C-2,3,7,8-TCDF		83.0	(24%-169%)
		13C-1,2,3,7,8-PeCDF		82.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		85.1	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		73.7	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		79.0	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		77.8	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		79.7	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		76.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		79.1	(26%-138%)
		37Cl-2,3,7,8-TCDD		85.6	(35%-197%)
17896001	SW-1(031821)	13C-2,3,7,8-TCDD		72.1	(25%-164%)

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

SDG Number: A1C0750

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
17896001	SW-1(031821)	13C-1,2,3,7,8-PeCDD		73.2	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		64.1	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		71.7	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		79.2	(23%-140%)
		13C-OCDD		70.0	(17%-157%)
		13C-2,3,7,8-TCDF		72.7	(24%-169%)
		13C-1,2,3,7,8-PeCDF		75.3	(24%-185%)
		13C-2,3,4,7,8-PeCDF		74.4	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		67.3	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		72.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		71.0	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		73.4	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		73.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		81.0	(35%-197%)
17896002	SW-1-DUP(031821)	13C-2,3,7,8-TCDD		63.3	(25%-164%)
		13C-1,2,3,7,8-PeCDD		60.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		53.7	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		67.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		66.9	(23%-140%)
		13C-OCDD		58.5	(17%-157%)
		13C-2,3,7,8-TCDF		63.4	(24%-169%)
		13C-1,2,3,7,8-PeCDF		63.5	(24%-185%)
		13C-2,3,4,7,8-PeCDF		60.6	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		60.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		65.8	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		65.3	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		60.3	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		64.7	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		61.1	(26%-138%)
		37Cl-2,3,7,8-TCDD		76.3	(35%-197%)
17896003	SW-2(031821)	13C-2,3,7,8-TCDD		75.7	(25%-164%)
		13C-1,2,3,7,8-PeCDD		72.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		60.7	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		74.9	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		76.2	(23%-140%)
		13C-OCDD		64.3	(17%-157%)
		13C-2,3,7,8-TCDF		76.7	(24%-169%)
		13C-1,2,3,7,8-PeCDF		78.8	(24%-185%)
		13C-2,3,4,7,8-PeCDF		77.5	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		66.7	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		72.6	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		72.8	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.9	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		73.0	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		73.8	(26%-138%)
		37Cl-2,3,7,8-TCDD		84.8	(35%-197%)

* Recovery outside Acceptance Limits

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: A1C0750

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
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* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: A1C0750

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 46544

Matrix: WATER

Lab Sample ID: 12029050

Instrument: HRP750

Analysis Date: 04/12/2021 21:37

Dilution: 1

Analyst: CLP

Prep Batch ID: 46544

Batch ID: 46547

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	200	185	92.6	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	1000	1040	104	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	1000	1010	101	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	1000	1030	103	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	1000	1040	104	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	1000	948	94.8	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	2000	1900	95.2	78-144
51207-31-9	LCS 2,3,7,8-TCDF	200	188	94.1	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	1000	934	93.4	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	1000	946	94.6	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	1000	914	91.4	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	1000	905	90.5	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	1000	894	89.4	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	1000	899	89.9	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	1000	884	88.4	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	1000	890	89	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	2000	1820	90.9	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 2 of 2

SDG Number: A1C0750

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 46544

Matrix: WATER

Lab Sample ID: 12029051

Instrument: HRP750

Analysis Date: 04/12/2021 22:26

Dilution: 1

Analyst: CLP

Prep Batch ID: 46544

Batch ID: 46547

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	200	184	92	67-158	0.618	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	1000	1040	104	70-142	0.158	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	1000	1020	102	70-164	0.884	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	1000	1040	104	76-134	1.53	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	1000	1070	107	64-162	2.94	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	1000	951	95.1	70-140	0.364	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	2000	1890	94.4	78-144	0.850	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	200	184	92.2	75-158	2.02	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	1000	945	94.5	80-134	1.22	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	1000	944	94.4	68-160	0.237	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	1000	928	92.8	72-134	1.48	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	1000	898	89.8	84-130	0.874	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	1000	908	90.8	70-156	1.52	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	1000	902	90.2	78-130	0.233	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	1000	896	89.6	82-122	1.25	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	1000	887	88.7	78-138	0.425	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	2000	1830	91.6	63-170	0.788	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A1C0750
Client ID: MB for batch 46544
Lab Sample ID: 12029049
Column:

Client: APEX001
Instrument ID: HRP750
Prep Date: 08-APR-21

Matrix: WATER
Data File: A10APR21A_7-3
Analyzed: 04/12/21 23:16

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 46544	12029050	A10APR21A_7-1	04/12/21	2137
02 LCSD for batch 46544	12029051	A10APR21A_7-2	04/12/21	2226
03 SW-1(031821)	17896001	A10APR21A_7-4	04/13/21	0006
04 SW-1-DUP(031821)	17896002	A10APR21A_7-5	04/13/21	0056
05 SW-2(031821)	17896003	A10APR21A_7-6	04/13/21	0146

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C0750
Lab Sample ID: 12029049
Client Sample: QC for batch 46544
Client ID: MB for batch 46544
Batch ID: 46547
Run Date: 04/12/2021 23:16
Data File: A10APR21A_7-3
Prep Batch: 46544
Prep Date: 08-APR-21

Client: APEX001

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.01	pg/L	1.01	10.0
40321-76-4	1,2,3,7,8-PeCDD	JK	0.780	pg/L	0.644	50.0
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.29	pg/L	1.29	50.0
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.23	pg/L	1.23	50.0
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.27	pg/L	1.27	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	1.48	pg/L	1.48	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD	JK	3.34	pg/L	1.32	100
51207-31-9	2,3,7,8-TCDF	U	0.774	pg/L	0.774	10.0
57117-41-6	1,2,3,7,8-PeCDF	JK	1.04	pg/L	0.636	50.0
57117-31-4	2,3,4,7,8-PeCDF	JK	1.02	pg/L	0.574	50.0
70648-26-9	1,2,3,4,7,8-HxCDF	JK	0.860	pg/L	0.540	50.0
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.700	pg/L	0.560	50.0
60851-34-5	2,3,4,6,7,8-HxCDF	J	0.820	pg/L	0.558	50.0
72918-21-9	1,2,3,7,8,9-HxCDF	JK	1.10	pg/L	0.822	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	0.820	pg/L	0.620	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF	JK	1.16	pg/L	0.946	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	2.30	pg/L	1.97	100
41903-57-5	Total TeCDD	U	1.01	pg/L	1.01	10.0
36088-22-9	Total PeCDD	JK	2.18	pg/L	0.644	50.0
34465-46-8	Total HxCDD	JK	8.02	pg/L	1.23	50.0
37871-00-4	Total HpCDD	U	1.48	pg/L	1.48	50.0
30402-14-3	Total TeCDF	U	0.774	pg/L	0.774	10.0
30402-15-4	Total PeCDF	JK	2.06	pg/L	0.574	50.0
55684-94-1	Total HxCDF	JK	3.48	pg/L	0.540	50.0
38998-75-3	Total HpCDF	JK	1.98	pg/L	0.620	50.0
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		1.49	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.23	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1700	2000	pg/L	84.8	(25%-164%)
13C-1,2,3,7,8-PeCDD		1650	2000	pg/L	82.4	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1370	2000	pg/L	68.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1550	2000	pg/L	77.7	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1700	2000	pg/L	85.1	(23%-140%)
13C-OCDD		3010	4000	pg/L	75.2	(17%-157%)
13C-2,3,7,8-TCDF		1660	2000	pg/L	83.0	(24%-169%)
13C-1,2,3,7,8-PeCDF		1640	2000	pg/L	82.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		1700	2000	pg/L	85.1	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1470	2000	pg/L	73.7	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1580	2000	pg/L	79.0	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1560	2000	pg/L	77.8	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1590	2000	pg/L	79.7	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1C0750	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029049			Matrix:	WATER
Client Sample:	QC for batch 46544				
Client ID:	MB for batch 46544			Prep Basis:	As Received
Batch ID:	46547	Method:	EPA Method 1613B		
Run Date:	04/12/2021 23:16	Analyst:	CLP	Instrument:	HRP750
Data File:	A10APR21A_7-3			Dilution:	1
Prep Batch:	46544	Prep Method:	SW846 3520C		
Prep Date:	08-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1530	2000	pg/L	76.7	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1580	2000	pg/L	79.1	(26%-138%)
37Cl-2,3,7,8-TCDD			171	200	pg/L	85.6	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary				Page 1 of 1	
SDG Number:	A1C0750	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029050			Matrix:	WATER
Client Sample:	QC for batch 46544				
Client ID:	LCS for batch 46544			Prep Basis:	As Received
Batch ID:	46547	Method:	EPA Method 1613B		
Run Date:	04/12/2021 21:37	Analyst:	CLP	Instrument:	HRP750
Data File:	A10APR21A_7-1			Dilution:	1
Prep Batch:	46544	Prep Method:	SW846 3520C		
Prep Date:	08-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		185	pg/L	1.16	10.0
40321-76-4	1,2,3,7,8-PeCDD		1040	pg/L	2.68	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		1010	pg/L	4.38	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		1030	pg/L	4.24	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		1040	pg/L	4.36	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		948	pg/L	7.20	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1900	pg/L	12.5	100
51207-31-9	2,3,7,8-TCDF		188	pg/L	1.14	10.0
57117-41-6	1,2,3,7,8-PeCDF		934	pg/L	3.24	50.0
57117-31-4	2,3,4,7,8-PeCDF		946	pg/L	2.94	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		914	pg/L	4.92	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		905	pg/L	4.82	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		894	pg/L	4.84	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		899	pg/L	7.00	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		884	pg/L	5.18	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		890	pg/L	7.92	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1820	pg/L	10.7	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1730	2000	pg/L	86.3	(20%-175%)
13C-1,2,3,7,8-PeCDD		1770	2000	pg/L	88.4	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1450	2000	pg/L	72.7	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1660	2000	pg/L	83.0	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1770	2000	pg/L	88.7	(22%-166%)
13C-OCDD		2990	4000	pg/L	74.7	(13%-199%)
13C-2,3,7,8-TCDF		1690	2000	pg/L	84.7	(22%-152%)
13C-1,2,3,7,8-PeCDF		1820	2000	pg/L	91.2	(21%-192%)
13C-2,3,4,7,8-PeCDF		1810	2000	pg/L	90.4	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1530	2000	pg/L	76.3	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1620	2000	pg/L	80.8	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1600	2000	pg/L	80.0	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1600	2000	pg/L	79.8	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1620	2000	pg/L	81.0	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1620	2000	pg/L	80.9	(20%-186%)
37Cl-2,3,7,8-TCDD		178	200	pg/L	89.2	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary				Page 1 of 1	
SDG Number:	A1C0750	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029051			Matrix:	WATER
Client Sample:	QC for batch 46544				
Client ID:	LCSD for batch 46544			Prep Basis:	As Received
Batch ID:	46547	Method:	EPA Method 1613B		
Run Date:	04/12/2021 22:26	Analyst:	CLP	Instrument:	HRP750
Data File:	A10APR21A_7-2			Dilution:	1
Prep Batch:	46544	Prep Method:	SW846 3520C		
Prep Date:	08-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		184	pg/L	0.902	10.0
40321-76-4	1,2,3,7,8-PeCDD		1040	pg/L	1.90	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		1020	pg/L	4.24	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		1040	pg/L	3.98	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		1070	pg/L	4.16	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		951	pg/L	5.88	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1890	pg/L	10.2	100
51207-31-9	2,3,7,8-TCDF		184	pg/L	1.06	10.0
57117-41-6	1,2,3,7,8-PeCDF		945	pg/L	3.96	50.0
57117-31-4	2,3,4,7,8-PeCDF		944	pg/L	3.78	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		928	pg/L	4.14	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		898	pg/L	4.26	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		908	pg/L	4.48	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		902	pg/L	6.34	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		896	pg/L	4.86	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		887	pg/L	7.26	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1830	pg/L	11.6	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1520	2000	pg/L	76.1	(20%-175%)
13C-1,2,3,7,8-PeCDD		1620	2000	pg/L	80.8	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1390	2000	pg/L	69.4	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1590	2000	pg/L	79.3	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1730	2000	pg/L	86.5	(22%-166%)
13C-OCDD		3140	4000	pg/L	78.6	(13%-199%)
13C-2,3,7,8-TCDF		1580	2000	pg/L	79.0	(22%-152%)
13C-1,2,3,7,8-PeCDF		1660	2000	pg/L	83.1	(21%-192%)
13C-2,3,4,7,8-PeCDF		1630	2000	pg/L	81.4	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1480	2000	pg/L	73.8	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1600	2000	pg/L	80.2	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1520	2000	pg/L	76.1	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1590	2000	pg/L	79.3	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1550	2000	pg/L	77.5	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1620	2000	pg/L	81.0	(20%-186%)
37Cl-2,3,7,8-TCDD		157	200	pg/L	78.4	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Tuesday, April 27, 2021

Kyle Haggart
GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

RE: A1C1109 - Former Automatic Vending Co. - BCSAmerica-1-02

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1C1109, which was received by the laboratory on 3/29/2021 at 7:30:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	3.9 degC	Cooler #2	2.6 degC
Cooler #3	0.1 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1(032821)	A1C1109-01	Water	03/28/21 15:55	03/29/21 07:30
SW-2(032821)	A1C1109-02	Water	03/28/21 16:00	03/29/21 07:30
SW-2-DUP(032821)	A1C1109-03	Water	03/28/21 16:05	03/29/21 07:30
SW-1-TB(032821)	A1C1109-04	Water	03/28/21 00:00	03/29/21 07:30
SW-2-TB(032821)	A1C1109-05	Water	03/28/21 00:00	03/29/21 07:30
SW-2-DUP-TB(032821)	A1C1109-06	Water	03/28/21 00:00	03/29/21 07:30

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)		Matrix: Water			Batch: 1040078			
Diesel	ND	0.0952	0.190	mg/L	1	04/02/21 23:06	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	04/02/21 23:06	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/02/21 23:06</i>	<i>NWTPH-Dx</i>	
SW-2(032821) (A1C1109-02)		Matrix: Water			Batch: 1040078			
Diesel	0.306	0.0935	0.187	mg/L	1	04/02/21 23:28	NWTPH-Dx	F-11
Oil	ND	0.187	0.374	mg/L	1	04/02/21 23:28	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/02/21 23:28</i>	<i>NWTPH-Dx</i>	
SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1040078			
Diesel	0.266	0.0935	0.187	mg/L	1	04/02/21 23:50	NWTPH-Dx	F-11
Oil	ND	0.187	0.374	mg/L	1	04/02/21 23:50	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/02/21 23:50</i>	<i>NWTPH-Dx</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)		Matrix: Water			Batch: 1031194			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/31/21 17:15	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 113 %	Limits: 50-150 %	1	03/31/21 17:15	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		98 %	50-150 %	1	03/31/21 17:15	NWTPH-Gx (MS)		
SW-2(032821) (A1C1109-02)		Matrix: Water			Batch: 1031194			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/31/21 17:42	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 112 %	Limits: 50-150 %	1	03/31/21 17:42	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		97 %	50-150 %	1	03/31/21 17:42	NWTPH-Gx (MS)		
SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1031194			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/31/21 18:09	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 112 %	Limits: 50-150 %	1	03/31/21 18:09	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		98 %	50-150 %	1	03/31/21 18:09	NWTPH-Gx (MS)		

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)				Matrix: Water		Batch: 1031194		
Acetone	ND	10.0	20.0	ug/L	1	03/31/21 17:15	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:15	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/31/21 17:15	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/31/21 17:15	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
tert-Butylbenzene	ND	1.00	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/31/21 17:15	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:15	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/31/21 17:15	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:15	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:15	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:15	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/31/21 17:15	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/31/21 17:15	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/31/21 17:15	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/31/21 17:15	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)		Matrix: Water			Batch: 1031194			
Naphthalene	ND	1.00	2.00	ug/L	1	03/31/21 17:15	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:15	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/31/21 17:15	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/31/21 17:15	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/31/21 17:15	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/31/21 17:15	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/31/21 17:15	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/31/21 17:15	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 115 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/31/21 17:15</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/31/21 17:15</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/31/21 17:15</i>	<i>EPA 8260D</i>	
SW-2(032821) (A1C1109-02)		Matrix: Water			Batch: 1031194			
Acetone	ND	10.0	20.0	ug/L	1	03/31/21 17:42	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:42	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/31/21 17:42	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/31/21 17:42	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
tert-Butylbenzene	ND	1.00	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/31/21 17:42	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:42	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/31/21 17:42	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:42	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(032821) (A1C1109-02)		Matrix: Water			Batch: 1031194			
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:42	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:42	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/31/21 17:42	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/31/21 17:42	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/31/21 17:42	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/31/21 17:42	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	03/31/21 17:42	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/31/21 17:42	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/31/21 17:42	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/31/21 17:42	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/31/21 17:42	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/31/21 17:42	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/31/21 17:42	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/31/21 17:42	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 115 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>03/31/21 17:42</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>92 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/31/21 17:42</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/31/21 17:42</i>	<i>EPA 8260D</i>	

SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1031194			
Acetone	ND	20.0	20.0	ug/L	1	03/31/21 18:09	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/31/21 18:09	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/31/21 18:09	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/31/21 18:09	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1031194			
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
tert-Butylbenzene	ND	1.00	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/31/21 18:09	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 18:09	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/31/21 18:09	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 18:09	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 18:09	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/31/21 18:09	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/31/21 18:09	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/31/21 18:09	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/31/21 18:09	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/31/21 18:09	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	03/31/21 18:09	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/31/21 18:09	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/31/21 18:09	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/31/21 18:09	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/31/21 18:09	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/31/21 18:09	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/31/21 18:09	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/31/21 18:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 118 %		Limits: 80-120 %	1	03/31/21 18:09	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1031194			
Surrogate: Toluene-d8 (Surr)		Recovery: 93 %	Limits: 80-120 %	1	03/31/21 18:09	EPA 8260D		
4-Bromofluorobenzene (Surr)		103 %	80-120 %	1	03/31/21 18:09	EPA 8260D		

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ANALYTICAL REPORT

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)		Matrix: Water			Batch: 1040059			
Benzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/02/21 14:36	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/02/21 14:36</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 14:36</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 14:36</i>	<i>EPA 8260D SIM</i>

SW-2(032821) (A1C1109-02)**Matrix: Water****Batch: 1040059**

Benzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM
Toluene	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/02/21 15:03	EPA 8260D SIM

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(032821) (A1C1109-02)		Matrix: Water			Batch: 1040059			
o-Xylene	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/02/21 15:03	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>104 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/02/21 15:03</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 15:03</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>94 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 15:03</i>	<i>EPA 8260D SIM</i>

SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1040059			
Benzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-DUP(032821) (A1C1109-03)				Matrix: Water		Batch: 1040059		
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/02/21 15:29	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 103 %	Limits: 80-120 %	1	04/02/21 15:29	EPA 8260D SIM		
Toluene-d8 (Surr)		94 %	80-120 %	1	04/02/21 15:29	EPA 8260D SIM		
4-Bromofluorobenzene (Surr)		94 %	80-120 %	1	04/02/21 15:29	EPA 8260D SIM		

SW-1-TB(032821) (A1C1109-04)				Matrix: Water		Batch: 1040059		
Benzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-TB(032821) (A1C1109-04)				Matrix: Water		Batch: 1040059		
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/02/21 13:15	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/02/21 13:15</i>	<i>EPA 8260D SIM</i>	
<i>Toluene-d8 (Surr)</i>		<i>92 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 13:15</i>	<i>EPA 8260D SIM</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 13:15</i>	<i>EPA 8260D SIM</i>	

SW-2-TB(032821) (A1C1109-05)				Matrix: Water		Batch: 1040059		
Benzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-TB(032821) (A1C1109-05)		Matrix: Water			Batch: 1040059			
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/02/21 13:42	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %	1	04/02/21 13:42	EPA 8260D SIM	
Toluene-d8 (Surr)		95 %		80-120 %	1	04/02/21 13:42	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		96 %		80-120 %	1	04/02/21 13:42	EPA 8260D SIM	
SW-2-DUP-TB(032821) (A1C1109-06)		Matrix: Water			Batch: 1040059			
Benzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-DUP-TB(032821) (A1C1109-06)		Matrix: Water			Batch: 1040059			
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/02/21 14:09	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/02/21 14:09</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 14:09</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/02/21 14:09</i>	<i>EPA 8260D SIM</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)		Matrix: Water			Batch: 1040065		C-07	
Aroclor 1016	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Aroclor 1221	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Aroclor 1232	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Aroclor 1242	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Aroclor 1248	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Aroclor 1254	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Aroclor 1260	ND	0.0200	0.0400	ug/L	1	04/05/21 08:26	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 85 %		Limits: 40-135 %	1	04/05/21 08:26	EPA 8082A	
SW-2(032821) (A1C1109-02)		Matrix: Water			Batch: 1040065		C-07	
Aroclor 1016	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Aroclor 1221	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Aroclor 1232	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Aroclor 1242	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Aroclor 1248	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Aroclor 1254	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Aroclor 1260	ND	0.0187	0.0374	ug/L	1	04/05/21 08:43	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 82 %		Limits: 40-135 %	1	04/05/21 08:43	EPA 8082A	
SW-2-DUP(032821) (A1C1109-03)		Matrix: Water			Batch: 1040065		C-07	
Aroclor 1016	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Aroclor 1221	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Aroclor 1232	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Aroclor 1242	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Aroclor 1248	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Aroclor 1254	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Aroclor 1260	ND	0.0187	0.0374	ug/L	1	04/05/21 09:01	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 76 %		Limits: 40-135 %	1	04/05/21 09:01	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01RE2)		Matrix: Water			Batch: 1031212			
Acenaphthene	0.0102	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	J
Acenaphthylene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Anthracene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Benz(a)anthracene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Benzo(a)pyrene	0.0176	0.0153	0.0306	ug/L	1	04/01/21 13:53	EPA 8270E	J
Benzo(b)fluoranthene	0.0172	0.0153	0.0306	ug/L	1	04/01/21 13:53	EPA 8270E	J
Benzo(k)fluoranthene	ND	0.0153	0.0306	ug/L	1	04/01/21 13:53	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Chrysene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Fluoranthene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Fluorene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
1-Methylnaphthalene	ND	0.0204	0.0408	ug/L	1	04/01/21 13:53	EPA 8270E	
2-Methylnaphthalene	ND	0.0204	0.0408	ug/L	1	04/01/21 13:53	EPA 8270E	
Naphthalene	ND	0.0204	0.0408	ug/L	1	04/01/21 13:53	EPA 8270E	
Phenanthrene	0.0117	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	J
Pyrene	0.0106	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	J
Carbazole	ND	0.0153	0.0306	ug/L	1	04/01/21 13:53	EPA 8270E	
Dibenzofuran	ND	0.0102	0.0204	ug/L	1	04/01/21 13:53	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.204	0.408	ug/L	1	04/01/21 13:53	EPA 8270E	
Butyl benzyl phthalate	ND	0.204	0.408	ug/L	1	04/01/21 13:53	EPA 8270E	
Diethylphthalate	ND	0.204	0.408	ug/L	1	04/01/21 13:53	EPA 8270E	
Dimethylphthalate	ND	0.204	0.408	ug/L	1	04/01/21 13:53	EPA 8270E	
Di-n-butylphthalate	ND	0.204	0.408	ug/L	1	04/01/21 13:53	EPA 8270E	
Di-n-octyl phthalate	ND	0.204	0.408	ug/L	1	04/01/21 13:53	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	80 %	<i>Limits:</i>	44-120 %	1	04/01/21 13:53	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			57 %		44-120 %	1	04/01/21 13:53	EPA 8270E
<i>Phenol-d6 (Surr)</i>			27 %		10-133 %	1	04/01/21 13:53	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			77 %		50-134 %	1	04/01/21 13:53	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			36 %		19-120 %	1	04/01/21 13:53	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			80 %		43-140 %	1	04/01/21 13:53	EPA 8270E

SW-2(032821) (A1C1109-02RE1)**Matrix: Water****Batch: 1031212****R-04**

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(032821) (A1C1109-02RE1)		Matrix: Water			Batch: 1031212		R-04	
Acenaphthene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Acenaphthylene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Anthracene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Benz(a)anthracene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Benzo(a)pyrene	ND	0.0561	0.112	ug/L	4	03/31/21 23:14	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0561	0.112	ug/L	4	03/31/21 23:14	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0561	0.112	ug/L	4	03/31/21 23:14	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Chrysene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Fluoranthene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Fluorene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
1-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	03/31/21 23:14	EPA 8270E	
2-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	03/31/21 23:14	EPA 8270E	
Naphthalene	ND	0.0748	0.150	ug/L	4	03/31/21 23:14	EPA 8270E	
Phenanthrene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Pyrene	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Carbazole	ND	0.0561	0.112	ug/L	4	03/31/21 23:14	EPA 8270E	
Dibenzofuran	ND	0.0374	0.0748	ug/L	4	03/31/21 23:14	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.748	1.50	ug/L	4	03/31/21 23:14	EPA 8270E	
Butyl benzyl phthalate	ND	0.748	1.50	ug/L	4	03/31/21 23:14	EPA 8270E	
Diethylphthalate	ND	0.748	1.50	ug/L	4	03/31/21 23:14	EPA 8270E	
Dimethylphthalate	ND	0.748	1.50	ug/L	4	03/31/21 23:14	EPA 8270E	
Di-n-butylphthalate	ND	0.748	1.50	ug/L	4	03/31/21 23:14	EPA 8270E	
Di-n-octyl phthalate	ND	0.748	1.50	ug/L	4	03/31/21 23:14	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	89 %	<i>Limits:</i>	44-120 %	4	03/31/21 23:14	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			65 %		44-120 %	4	03/31/21 23:14	EPA 8270E
<i>Phenol-d6 (Surr)</i>			26 %		10-133 %	4	03/31/21 23:14	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			63 %		50-134 %	4	03/31/21 23:14	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			36 %		19-120 %	4	03/31/21 23:14	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			89 %		43-140 %	4	03/31/21 23:14	EPA 8270E
SW-2-DUP(032821) (A1C1109-03RE1)		Matrix: Water			Batch: 1031212		R-04	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-DUP(032821) (A1C1109-03RE1)				Matrix: Water		Batch: 1031212		R-04
Acenaphthene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Acenaphthylene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Anthracene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Benz(a)anthracene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Benzo(a)pyrene	ND	0.0561	0.112	ug/L	4	04/01/21 13:17	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0561	0.112	ug/L	4	04/01/21 13:17	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0561	0.112	ug/L	4	04/01/21 13:17	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Chrysene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Fluoranthene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Fluorene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
1-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	04/01/21 13:17	EPA 8270E	
2-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	04/01/21 13:17	EPA 8270E	
Naphthalene	ND	0.0748	0.150	ug/L	4	04/01/21 13:17	EPA 8270E	
Phenanthrene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Pyrene	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Carbazole	ND	0.0561	0.112	ug/L	4	04/01/21 13:17	EPA 8270E	
Dibenzofuran	ND	0.0374	0.0748	ug/L	4	04/01/21 13:17	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.748	1.50	ug/L	4	04/01/21 13:17	EPA 8270E	
Butyl benzyl phthalate	ND	0.748	1.50	ug/L	4	04/01/21 13:17	EPA 8270E	
Diethylphthalate	ND	0.748	1.50	ug/L	4	04/01/21 13:17	EPA 8270E	
Dimethylphthalate	ND	0.748	1.50	ug/L	4	04/01/21 13:17	EPA 8270E	
Di-n-butylphthalate	ND	0.748	1.50	ug/L	4	04/01/21 13:17	EPA 8270E	
Di-n-octyl phthalate	ND	0.748	1.50	ug/L	4	04/01/21 13:17	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	98 %	<i>Limits:</i>	44-120 %	4	04/01/21 13:17	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			70 %		44-120 %	4	04/01/21 13:17	EPA 8270E
<i>Phenol-d6 (Surr)</i>			28 %		10-133 %	4	04/01/21 13:17	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			74 %		50-134 %	4	04/01/21 13:17	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			41 %		19-120 %	4	04/01/21 13:17	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			92 %		43-140 %	4	04/01/21 13:17	EPA 8270E

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 200.8 (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01) Matrix: Water								
Batch: 1040156								
Chromium	ND	0.500	1.00	ug/L	1	04/06/21 23:39	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	04/06/21 23:39	EPA 200.8	
Zinc	45.1	2.00	4.00	ug/L	1	04/06/21 23:39	EPA 200.8	
SW-2(032821) (A1C1109-02) Matrix: Water								
Batch: 1040156								
Chromium	ND	0.500	1.00	ug/L	1	04/06/21 23:44	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	04/06/21 23:44	EPA 200.8	
Zinc	41.7	2.00	4.00	ug/L	1	04/06/21 23:44	EPA 200.8	
SW-2-DUP(032821) (A1C1109-03) Matrix: Water								
Batch: 1040156								
Chromium	ND	0.500	1.00	ug/L	1	04/07/21 00:01	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	04/07/21 00:01	EPA 200.8	
Zinc	40.5	2.00	4.00	ug/L	1	04/07/21 00:01	EPA 200.8	

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01) Matrix: Water								
Batch: 1040504								
Arsenic	0.143	0.0500	0.100	ug/L	1	04/19/21 16:25	EPA 200.8-LL	
SW-1(032821) (A1C1109-01RE1) Matrix: Water								
Batch: 1040504								
Cadmium	0.0379	0.00900	0.0180	ug/L	1	04/19/21 20:19	EPA 200.8-LL	
SW-2(032821) (A1C1109-02) Matrix: Water								
Batch: 1040504								
Arsenic	0.184	0.0500	0.100	ug/L	1	04/19/21 16:46	EPA 200.8-LL	
SW-2(032821) (A1C1109-02RE3) Matrix: Water								
Batch: 1040504								
Cadmium	0.0408	0.00900	0.0180	ug/L	1	04/19/21 21:00	EPA 200.8-LL	
SW-2-DUP(032821) (A1C1109-03) Matrix: Water								
Batch: 1040504								
Arsenic	0.190	0.0500	0.100	ug/L	1	04/19/21 16:53	EPA 200.8-LL	
SW-2-DUP(032821) (A1C1109-03RE1) Matrix: Water								
Batch: 1040504								
Cadmium	0.0379	0.00900	0.0180	ug/L	1	04/19/21 19:58	EPA 200.8-LL	

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C1109 - 04 27 21 1611

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(032821) (A1C1109-01)				Matrix: Water				
Batch: 1040705								
Total Suspended Solids	8.00	5.00	5.00	mg/L	1	04/22/21 10:49	SM 2540 D	H-06, Q-42
SW-2(032821) (A1C1109-02)				Matrix: Water				
Batch: 1040705								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	04/22/21 10:49	SM 2540 D	H-06
SW-2-DUP(032821) (A1C1109-03)				Matrix: Water				
Batch: 1040705								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	04/22/21 10:49	SM 2540 D	H-06

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 1040078 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (1040078-BLK1)			Prepared: 04/02/21 12:02 Analyzed: 04/02/21 22:01										
NWTPH-Dx													
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---		
Oil	ND	0.182	0.364	mg/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x							
LCS (1040078-BS1)			Prepared: 04/02/21 12:02 Analyzed: 04/02/21 22:23										
NWTPH-Dx													
Diesel	1.14	0.100	0.200	mg/L	1	1.25	---	91	59-115%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (1040078-BSD1)			Prepared: 04/02/21 12:02 Analyzed: 04/02/21 22:45										Q-19
NWTPH-Dx													
Diesel	1.24	0.100	0.200	mg/L	1	1.25	---	99	59-115%	8	30%		
Surr: o-Terphenyl (Surr)		Recovery: 102 %		Limits: 50-150 %		Dilution: 1x							

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Blank (1031194-BLK1)			Prepared: 03/31/21 07:30 Analyzed: 03/31/21 10:03									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	112 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			98 %		50-150 %	"						
LCS (1031194-BS2)			Prepared: 03/31/21 07:30 Analyzed: 03/31/21 09:36									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.401	0.0500	0.100	mg/L	1	0.500	---	80	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	108 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			90 %		50-150 %	"						
Duplicate (1031194-DUP1)			Prepared: 03/31/21 10:00 Analyzed: 03/31/21 14:33									
<u>QC Source Sample: Non-SDG (A1C1160-05)</u>												
Gasoline Range Organics	0.374	0.0500	0.100	mg/L	1	---	0.359	---	---	4	30%	F-12
Surr: 4-Bromofluorobenzene (Sur)		Recovery:	107 %	Limits:	50-150 %	Dilution: 1x						
1,4-Difluorobenzene (Sur)			97 %		50-150 %	"						

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GeoDesign, Inc.**9450 SW Commerce Circle
Wilsonville, OR 97070Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Blank (1031194-BLK1)			Prepared: 03/31/21 07:30		Analyzed: 03/31/21 10:03							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Blank (1031194-BLK1)						Prepared: 03/31/21 07:30 Analyzed: 03/31/21 10:03						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 114 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Blank (1031194-BLK1)				Prepared: 03/31/21 07:30		Analyzed: 03/31/21 10:03						
Surr: Toluene-d8 (Surr)		Recovery: 93 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
LCS (1031194-BS1)				Prepared: 03/31/21 07:30		Analyzed: 03/31/21 09:07						
EPA 8260D												
Acetone	36.8	10.0	20.0	ug/L	1	40.0	---	92	80-120%	---	---	
Acrylonitrile	21.4	1.00	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
Benzene	20.4	0.100	0.200	ug/L	1	20.0	---	102	80-120%	---	---	
Bromobenzene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	20.5	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromodichloromethane	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromoform	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromomethane	15.0	5.00	5.00	ug/L	1	20.0	---	75	80-120%	---	---	Q-55
2-Butanone (MEK)	40.3	5.00	10.0	ug/L	1	40.0	---	101	80-120%	---	---	
n-Butylbenzene	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
sec-Butylbenzene	17.8	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
tert-Butylbenzene	15.7	1.00	1.00	ug/L	1	20.0	---	78	80-120%	---	---	Q-55
Carbon disulfide	17.9	5.00	10.0	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon tetrachloride	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Chlorobenzene	19.5	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	27.1	5.00	5.00	ug/L	1	20.0	---	135	80-120%	---	---	Q-56
Chloroform	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chloromethane	25.5	2.50	5.00	ug/L	1	20.0	---	128	80-120%	---	---	Q-56
2-Chlorotoluene	17.4	0.500	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
4-Chlorotoluene	16.7	0.500	1.00	ug/L	1	20.0	---	83	80-120%	---	---	
Dibromochloromethane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.2	2.50	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromomethane	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,2-Dichlorobenzene	19.8	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichlorobenzene	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,4-Dichlorobenzene	18.8	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	20.1	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	

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ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
LCS (1031194-BS1)						Prepared: 03/31/21 07:30 Analyzed: 03/31/21 09:07						
1,2-Dichloroethane (EDC)	21.3	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloroethene	19.3	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
cis-1,2-Dichloroethene	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,2-Dichloroethene	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dichloropropane	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,3-Dichloropropane	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
2,2-Dichloropropane	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloropropene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,3-Dichloropropene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,3-Dichloropropene	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Ethylbenzene	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Hexachlorobutadiene	25.1	2.50	5.00	ug/L	1	20.0	---	125	80-120%	---	---	Q-56
2-Hexanone	35.9	5.00	10.0	ug/L	1	40.0	---	90	80-120%	---	---	
Isopropylbenzene	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Isopropyltoluene	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Methylene chloride	21.3	5.00	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	35.5	5.00	10.0	ug/L	1	40.0	---	89	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Naphthalene	16.9	1.00	2.00	ug/L	1	20.0	---	85	80-120%	---	---	
n-Propylbenzene	17.0	0.250	0.500	ug/L	1	20.0	---	85	80-120%	---	---	
Styrene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.4	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.1	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Tetrachloroethene (PCE)	21.3	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Toluene	17.6	0.250	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,3-Trichlorobenzene	22.9	1.00	2.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2,4-Trichlorobenzene	20.5	1.00	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,1-Trichloroethane	20.3	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2-Trichloroethane	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	21.5	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichlorofluoromethane	24.2	1.00	2.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
1,2,3-Trichloropropane	17.8	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,4-Trimethylbenzene	17.8	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,3,5-Trimethylbenzene	17.5	0.500	1.00	ug/L	1	20.0	---	88	80-120%	---	---	

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Philip Nerenberg, Lab Director

Page 28 of 57



ANALYTICAL REPORT

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
LCS (1031194-BS1)			Prepared: 03/31/21 07:30		Analyzed: 03/31/21 09:07							
Vinyl chloride	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
m,p-Xylene	38.8	0.500	1.00	ug/L	1	40.0	---	97	80-120%	---	---	
o-Xylene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 108 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		92 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

Duplicate (1031194-DUP1)

Prepared: 03/31/21 10:00 Analyzed: 03/31/21 14:33

QC Source Sample: Non-SDG (A1C1160-05)

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	1.00	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Duplicate (1031194-DUP1)			Prepared: 03/31/21 10:00		Analyzed: 03/31/21 14:33							
QC Source Sample: Non-SDG (A1C1160-05)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	33.6	0.200	0.400	ug/L	1	---	32.1	---	---	4	30%	
trans-1,2-Dichloroethene	0.760	0.200	0.400	ug/L	1	---	0.970	---	---	24	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	182	0.200	0.400	ug/L	1	---	172	---	---	6	30%	
Toluene	1.24	0.250	0.500	ug/L	1	---	1.39	---	---	11	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Duplicate (1031194-DUP1)			Prepared: 03/31/21 10:00 Analyzed: 03/31/21 14:33									
QC Source Sample: Non-SDG (A1C1160-05)												
Trichloroethene (TCE)	40.5	0.200	0.400	ug/L	1	---	38.3	---	---	6	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	0.610	0.200	0.400	ug/L	1	---	0.620	---	---	2	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 118 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		92 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		104 %		80-120 %		"						

Matrix Spike (1031194-MS1)

Prepared: 03/31/21 10:00 Analyzed: 03/31/21 15:27

QC Source Sample: Non-SDG (A1C1160-06)**EPA 8260D**

Acetone	41.4	10.0	20.0	ug/L	1	40.0	ND	104	39-160%	---	---	
Acrylonitrile	22.5	1.00	2.00	ug/L	1	20.0	ND	113	63-135%	---	---	
Benzene	22.3	0.100	0.200	ug/L	1	20.0	ND	112	79-120%	---	---	
Bromobenzene	19.8	0.250	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
Bromochloromethane	21.1	0.500	1.00	ug/L	1	20.0	ND	106	78-123%	---	---	
Bromodichloromethane	23.4	0.500	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
Bromoform	21.8	0.500	1.00	ug/L	1	20.0	ND	109	66-130%	---	---	
Bromomethane	17.2	5.00	5.00	ug/L	1	20.0	ND	86	53-141%	---	---	Q-54e
2-Butanone (MEK)	44.1	5.00	10.0	ug/L	1	40.0	ND	110	56-143%	---	---	
n-Butylbenzene	21.2	0.500	1.00	ug/L	1	20.0	ND	106	75-128%	---	---	
sec-Butylbenzene	19.6	0.500	1.00	ug/L	1	20.0	ND	98	77-126%	---	---	
tert-Butylbenzene	16.8	1.00	1.00	ug/L	1	20.0	ND	84	78-124%	---	---	Q-54d
Carbon disulfide	20.2	5.00	10.0	ug/L	1	20.0	ND	101	64-133%	---	---	
Carbon tetrachloride	26.0	0.500	1.00	ug/L	1	20.0	ND	130	72-136%	---	---	
Chlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	29.0	5.00	5.00	ug/L	1	20.0	ND	145	60-138%	---	---	Q-54a
Chloroform	23.2	0.500	1.00	ug/L	1	20.0	ND	116	79-124%	---	---	
Chloromethane	27.7	2.50	5.00	ug/L	1	20.0	ND	139	50-139%	---	---	Q-54c

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Matrix Spike (1031194-MS1)			Prepared: 03/31/21 10:00		Analyzed: 03/31/21 15:27							
QC Source Sample: Non-SDG (A1C1160-06)												
2-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	79-122%	---	---	
4-Chlorotoluene	17.8	0.500	1.00	ug/L	1	20.0	ND	89	78-122%	---	---	
Dibromochloromethane	20.4	0.500	1.00	ug/L	1	20.0	ND	102	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.8	2.50	5.00	ug/L	1	20.0	ND	94	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.0	0.250	0.500	ug/L	1	20.0	ND	105	77-121%	---	---	
Dibromomethane	23.3	0.500	1.00	ug/L	1	20.0	ND	116	79-123%	---	---	
1,2-Dichlorobenzene	21.4	0.250	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
1,3-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,4-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	ND	101	79-120%	---	---	
Dichlorodifluoromethane	25.2	0.500	1.00	ug/L	1	20.0	ND	126	32-152%	---	---	
1,1-Dichloroethane	21.3	0.200	0.400	ug/L	1	20.0	ND	106	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.2	0.200	0.400	ug/L	1	20.0	ND	111	73-128%	---	---	
1,1-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	ND	107	71-131%	---	---	
cis-1,2-Dichloroethene	39.3	0.200	0.400	ug/L	1	20.0	17.3	110	78-123%	---	---	
trans-1,2-Dichloroethene	21.7	0.200	0.400	ug/L	1	20.0	ND	109	75-124%	---	---	
1,2-Dichloropropane	20.4	0.250	0.500	ug/L	1	20.0	ND	102	78-122%	---	---	
1,3-Dichloropropane	19.3	0.500	1.00	ug/L	1	20.0	ND	97	80-120%	---	---	
2,2-Dichloropropane	20.2	0.500	1.00	ug/L	1	20.0	ND	101	60-139%	---	---	
1,1-Dichloropropene	22.7	0.500	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
cis-1,3-Dichloropropene	17.4	0.500	1.00	ug/L	1	20.0	ND	87	75-124%	---	---	
trans-1,3-Dichloropropene	20.4	0.500	1.00	ug/L	1	20.0	ND	102	73-127%	---	---	
Ethylbenzene	20.6	0.250	0.500	ug/L	1	20.0	ND	103	79-121%	---	---	
Hexachlorobutadiene	27.4	2.50	5.00	ug/L	1	20.0	ND	137	66-134%	---	---	Q-54b
2-Hexanone	37.1	5.00	10.0	ug/L	1	40.0	ND	93	57-139%	---	---	
Isopropylbenzene	21.2	0.500	1.00	ug/L	1	20.0	ND	106	72-131%	---	---	
4-Isopropyltoluene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	77-127%	---	---	
Methylene chloride	21.8	5.00	10.0	ug/L	1	20.0	ND	109	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	35.9	5.00	10.0	ug/L	1	40.0	ND	90	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	17.8	0.500	1.00	ug/L	1	20.0	ND	89	71-124%	---	---	
Naphthalene	17.6	1.00	2.00	ug/L	1	20.0	ND	88	61-128%	---	---	
n-Propylbenzene	18.5	0.250	0.500	ug/L	1	20.0	ND	92	76-126%	---	---	
Styrene	22.3	0.500	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
1,1,1,2-Tetrachloroethane	22.5	0.200	0.400	ug/L	1	20.0	ND	113	78-124%	---	---	

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Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031194 - EPA 5030B						Water						
Matrix Spike (1031194-MS1)			Prepared: 03/31/21 10:00		Analyzed: 03/31/21 15:27							
QC Source Sample: Non-SDG (A1C1160-06)												
1,1,2,2-Tetrachloroethane	18.7	0.250	0.500	ug/L	1	20.0	ND	94	71-121%	---	---	Q-54
Tetrachloroethene (PCE)	84.3	0.200	0.400	ug/L	1	20.0	62.6	108	74-129%	---	---	
Toluene	19.1	0.250	0.500	ug/L	1	20.0	ND	95	80-121%	---	---	
1,2,3-Trichlorobenzene	24.7	1.00	2.00	ug/L	1	20.0	ND	123	69-129%	---	---	
1,2,4-Trichlorobenzene	22.0	1.00	2.00	ug/L	1	20.0	ND	110	69-130%	---	---	
1,1,1-Trichloroethane	22.5	0.200	0.400	ug/L	1	20.0	ND	113	74-131%	---	---	
1,1,2-Trichloroethane	21.4	0.250	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Trichloroethene (TCE)	38.4	0.200	0.400	ug/L	1	20.0	14.5	119	79-123%	---	---	
Trichlorofluoromethane	28.1	1.00	2.00	ug/L	1	20.0	ND	140	65-141%	---	---	
1,2,3-Trichloropropane	18.7	0.500	1.00	ug/L	1	20.0	ND	93	73-122%	---	---	
1,2,4-Trimethylbenzene	19.0	0.500	1.00	ug/L	1	20.0	ND	95	76-124%	---	---	
1,3,5-Trimethylbenzene	19.0	0.500	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
Vinyl chloride	22.9	0.200	0.400	ug/L	1	20.0	0.430	112	58-137%	---	---	
m,p-Xylene	42.0	0.500	1.00	ug/L	1	40.0	ND	105	80-121%	---	---	
o-Xylene	19.7	0.250	0.500	ug/L	1	20.0	ND	98	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 110 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		91 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040059 - EPA 5030B						Water						
Blank (1040059-BLK1)			Prepared: 04/02/21 09:00 Analyzed: 04/02/21 12:48									
EPA 8260D SIM												
Benzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

LCS (1040059-BS1)

Prepared: 04/02/21 09:00 Analyzed: 04/02/21 12:14

EPA 8260D SIM

Benzene	0.215	0.0500	0.100	ug/L	1	0.200	---	108	80-120%	---	---
Toluene	0.190	0.0500	0.100	ug/L	1	0.200	---	95	80-120%	---	---

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040059 - EPA 5030B						Water						
LCS (1040059-BS1)			Prepared: 04/02/21 09:00 Analyzed: 04/02/21 12:14									
Ethylbenzene	0.172	0.0500	0.100	ug/L	1	0.200	---	86	80-120%	---	---	
m,p-Xylene	0.342	0.100	0.200	ug/L	1	0.400	---	86	80-120%	---	---	
o-Xylene	0.173	0.0500	0.100	ug/L	1	0.200	---	86	80-120%	---	---	
1,2,4-Trimethylbenzene	0.174	0.0500	0.100	ug/L	1	0.200	---	87	80-120%	---	---	
1,3,5-Trimethylbenzene	0.177	0.0500	0.100	ug/L	1	0.200	---	89	80-120%	---	---	
Chloroform	0.208	0.0500	0.100	ug/L	1	0.200	---	104	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.191	0.100	0.200	ug/L	1	0.200	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	0.192	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
1,1-Dichloroethane	0.220	0.0100	0.0200	ug/L	1	0.200	---	110	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.225	0.0100	0.0200	ug/L	1	0.200	---	112	80-120%	---	---	
1,1-Dichloroethene	0.188	0.0100	0.0200	ug/L	1	0.200	---	94	80-120%	---	---	
cis-1,2-Dichloroethene	0.203	0.0100	0.0200	ug/L	1	0.200	---	101	80-120%	---	---	
trans-1,2-Dichloroethene	0.217	0.0100	0.0200	ug/L	1	0.200	---	108	80-120%	---	---	
1,2-Dichloropropane	0.226	0.0100	0.0200	ug/L	1	0.200	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	0.189	0.0100	0.0200	ug/L	1	0.200	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	0.192	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	0.189	0.0100	0.0200	ug/L	1	0.200	---	95	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.206	0.0100	0.0200	ug/L	1	0.200	---	103	80-120%	---	---	
Tetrachloroethene (PCE)	0.198	0.0100	0.0200	ug/L	1	0.200	---	99	80-120%	---	---	
1,1,2-Trichloroethane	0.189	0.0100	0.0200	ug/L	1	0.200	---	95	80-120%	---	---	
Trichloroethene (TCE)	0.210	0.0100	0.0200	ug/L	1	0.200	---	105	80-120%	---	---	
1,2,3-Trichloropropane	0.204	0.0500	0.100	ug/L	1	0.200	---	102	80-120%	---	---	
Vinyl chloride	0.234	0.0100	0.0200	ug/L	1	0.200	---	117	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		93 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

Duplicate (1040059-DUP1)

Prepared: 04/02/21 12:37 Analyzed: 04/02/21 16:23

QC Source Sample: Non-SDG (A1C0919-03)

Benzene	334	1.25	2.50	ug/L	25	---	334	---	---	0.2	30%	E
Toluene	9.17	1.25	2.50	ug/L	25	---	9.19	---	---	0.3	30%	
Ethylbenzene	47.5	1.25	2.50	ug/L	25	---	46.3	---	---	3	30%	
m,p-Xylene	30.2	2.50	5.00	ug/L	25	---	29.4	---	---	2	30%	
o-Xylene	18.9	1.25	2.50	ug/L	25	---	18.6	---	---	1	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040059 - EPA 5030B						Water						
Duplicate (1040059-DUP1)			Prepared: 04/02/21 12:37 Analyzed: 04/02/21 16:23									
QC Source Sample: Non-SDG (A1C0919-03)												
1,2,4-Trimethylbenzene	9.43	1.25	2.50	ug/L	25	---	9.24	---	---	2	30%	
1,3,5-Trimethylbenzene	2.88	1.25	2.50	ug/L	25	---	2.82	---	---	2	30%	
Chloroform	ND	1.25	2.50	ug/L	25	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	25	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	1.25	2.50	ug/L	25	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		94 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

Matrix Spike (1040059-MS1)

Prepared: 04/02/21 12:37 Analyzed: 04/02/21 16:50

QC Source Sample: Non-SDG (A1C0919-03)**EPA 8260D SIM**

Benzene	338	1.25	2.50	ug/L	25	5.00	334	95	79-120%	---	---	
Toluene	13.4	1.25	2.50	ug/L	25	5.00	9.19	84	80-121%	---	---	
Ethylbenzene	52.1	1.25	2.50	ug/L	25	5.00	46.3	117	79-121%	---	---	
m,p-Xylene	38.8	2.50	5.00	ug/L	25	10.0	29.4	94	80-121%	---	---	
o-Xylene	23.1	1.25	2.50	ug/L	25	5.00	18.6	90	78-122%	---	---	
1,2,4-Trimethylbenzene	13.8	1.25	2.50	ug/L	25	5.00	9.24	90	76-124%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040059 - EPA 5030B						Water						
Matrix Spike (1040059-MS1)			Prepared: 04/02/21 12:37 Analyzed: 04/02/21 16:50									
QC Source Sample: Non-SDG (A1C0919-03)												
1,3,5-Trimethylbenzene	7.31	1.25	2.50	ug/L	25	5.00	2.82	90	75-124%	---	---	
Chloroform	5.11	1.25	2.50	ug/L	25	5.00	ND	102	79-124%	---	---	
1,2-Dibromo-3-chloropropane	4.40	2.50	5.00	ug/L	25	5.00	ND	88	62-128%	---	---	J
1,2-Dibromoethane (EDB)	4.56	0.250	0.500	ug/L	25	5.00	ND	91	77-121%	---	---	
1,1-Dichloroethane	5.43	0.250	0.500	ug/L	25	5.00	ND	109	77-125%	---	---	
1,2-Dichloroethane (EDC)	5.57	0.250	0.500	ug/L	25	5.00	ND	111	73-128%	---	---	
1,1-Dichloroethene	4.96	0.250	0.500	ug/L	25	5.00	ND	99	71-131%	---	---	
cis-1,2-Dichloroethene	5.02	0.250	0.500	ug/L	25	5.00	ND	100	78-123%	---	---	
trans-1,2-Dichloroethene	5.31	0.250	0.500	ug/L	25	5.00	ND	106	75-124%	---	---	
1,2-Dichloropropane	5.47	0.250	0.500	ug/L	25	5.00	ND	109	78-122%	---	---	
cis-1,3-Dichloropropene	4.39	0.250	0.500	ug/L	25	5.00	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	4.58	0.250	0.500	ug/L	25	5.00	ND	92	73-127%	---	---	
Methyl tert-butyl ether (MTBE)	4.46	0.250	0.500	ug/L	25	5.00	ND	89	71-124%	---	---	
1,1,2,2-Tetrachloroethane	4.76	0.250	0.500	ug/L	25	5.00	ND	95	71-121%	---	---	
Tetrachloroethene (PCE)	4.90	0.250	0.500	ug/L	25	5.00	ND	98	74-129%	---	---	
1,1,2-Trichloroethane	4.41	0.250	0.500	ug/L	25	5.00	ND	88	80-120%	---	---	
Trichloroethene (TCE)	5.20	0.250	0.500	ug/L	25	5.00	ND	104	79-123%	---	---	
1,2,3-Trichloropropane	4.93	1.25	2.50	ug/L	25	5.00	ND	99	73-122%	---	---	
Vinyl chloride	6.25	0.250	0.500	ug/L	25	5.00	ND	125	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		91 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

Matrix Spike Dup (1040059-MSD1)

Prepared: 04/02/21 12:37 Analyzed: 04/02/21 17:17

QC Source Sample: Non-SDG (A1C0919-03)												
Benzene	338	1.25	2.50	ug/L	25	5.00	334	85	79-120%	0.1	30%	
Toluene	13.2	1.25	2.50	ug/L	25	5.00	9.19	80	80-121%	2	30%	
Ethylbenzene	51.5	1.25	2.50	ug/L	25	5.00	46.3	104	79-121%	1	30%	
m,p-Xylene	38.6	2.50	5.00	ug/L	25	10.0	29.4	91	80-121%	0.6	30%	
o-Xylene	23.1	1.25	2.50	ug/L	25	5.00	18.6	90	78-122%	0.006	30%	
1,2,4-Trimethylbenzene	13.6	1.25	2.50	ug/L	25	5.00	9.24	88	76-124%	0.9	30%	
1,3,5-Trimethylbenzene	7.21	1.25	2.50	ug/L	25	5.00	2.82	88	75-124%	1	30%	
Chloroform	5.09	1.25	2.50	ug/L	25	5.00	ND	102	79-124%	0.4	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040059 - EPA 5030B						Water						
Matrix Spike Dup (1040059-MSD1)			Prepared: 04/02/21 12:37 Analyzed: 04/02/21 17:17									
QC Source Sample: Non-SDG (A1C0919-03)												
1,2-Dibromo-3-chloropropane	4.55	2.50	5.00	ug/L	25	5.00	ND	91	62-128%	3	30%	
1,2-Dibromoethane (EDB)	4.65	0.250	0.500	ug/L	25	5.00	ND	93	77-121%	2	30%	
1,1-Dichloroethane	5.40	0.250	0.500	ug/L	25	5.00	ND	108	77-125%	0.4	30%	
1,2-Dichloroethane (EDC)	5.51	0.250	0.500	ug/L	25	5.00	ND	110	73-128%	1	30%	
1,1-Dichloroethene	4.89	0.250	0.500	ug/L	25	5.00	ND	98	71-131%	1	30%	
cis-1,2-Dichloroethene	5.01	0.250	0.500	ug/L	25	5.00	ND	100	78-123%	0.2	30%	
trans-1,2-Dichloroethene	5.28	0.250	0.500	ug/L	25	5.00	ND	106	75-124%	0.5	30%	
1,2-Dichloropropane	5.50	0.250	0.500	ug/L	25	5.00	ND	110	78-122%	0.5	30%	
cis-1,3-Dichloropropene	4.49	0.250	0.500	ug/L	25	5.00	ND	90	75-124%	2	30%	
trans-1,3-Dichloropropene	4.47	0.250	0.500	ug/L	25	5.00	ND	89	73-127%	2	30%	
Methyl tert-butyl ether (MTBE)	4.56	0.250	0.500	ug/L	25	5.00	ND	91	71-124%	2	30%	
1,1,2,2-Tetrachloroethane	5.00	0.250	0.500	ug/L	25	5.00	ND	100	71-121%	5	30%	
Tetrachloroethene (PCE)	4.73	0.250	0.500	ug/L	25	5.00	ND	95	74-129%	4	30%	
1,1,2-Trichloroethane	4.48	0.250	0.500	ug/L	25	5.00	ND	90	80-120%	1	30%	
Trichloroethene (TCE)	5.15	0.250	0.500	ug/L	25	5.00	ND	103	79-123%	1	30%	
1,2,3-Trichloropropane	4.96	1.25	2.50	ug/L	25	5.00	ND	99	73-122%	0.7	30%	
Vinyl chloride	6.02	0.250	0.500	ug/L	25	5.00	ND	120	58-137%	4	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		92 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

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ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040065 - EPA 3510C (Neutral pH)						Water						
Blank (1040065-BLK1)			Prepared: 04/02/21 10:31 Analyzed: 04/05/21 08:26									C-07
EPA 8082A												
Aroclor 1016	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 99 %		Limits: 40-135 %		Dilution: 1x						
LCS (1040065-BS1)			Prepared: 04/02/21 10:31 Analyzed: 04/05/21 08:43									C-07
EPA 8082A												
Aroclor 1016	1.63	0.0200	0.0400	ug/L	1	2.50	---	65	46-129%	---	---	
Aroclor 1260	1.91	0.0200	0.0400	ug/L	1	2.50	---	76	45-134%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 98 %		Limits: 40-135 %		Dilution: 1x						
LCS Dup (1040065-BSD1)			Prepared: 04/02/21 10:31 Analyzed: 04/05/21 09:01									C-07, Q-19
EPA 8082A												
Aroclor 1016	1.70	0.0200	0.0400	ug/L	1	2.50	---	68	46-129%	5	30%	
Aroclor 1260	2.02	0.0200	0.0400	ug/L	1	2.50	---	81	45-134%	5	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 96 %		Limits: 40-135 %		Dilution: 1x						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031212 - EPA 3510C (Acid Extraction)						Water						
Blank (1031212-BLK2)			Prepared: 03/31/21 10:35		Analyzed: 03/31/21 16:48							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031212 - EPA 3510C (Acid Extraction)						Water						
Blank (1031212-BLK2)			Prepared: 03/31/21 10:35		Analyzed: 03/31/21 16:48							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 96 %		Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		56 %		44-120 %		"						
Phenol-d6 (Surr)		32 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		90 %		50-134 %		"						
2-Fluorophenol (Surr)		47 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		74 %		43-140 %		"						

LCS (1031212-BS2)

Prepared: 03/31/21 10:35 Analyzed: 03/31/21 17:23

EPA 8270E

Acenaphthene	2.24	0.0200	0.0400	ug/L	2	4.00	---	56	47-122%	---	---
Acenaphthylene	2.60	0.0200	0.0400	ug/L	2	4.00	---	65	41-130%	---	---
Anthracene	3.28	0.0200	0.0400	ug/L	2	4.00	---	82	57-123%	---	---
Benz(a)anthracene	3.63	0.0200	0.0400	ug/L	2	4.00	---	91	58-125%	---	---
Benzo(a)pyrene	3.71	0.0300	0.0600	ug/L	2	4.00	---	93	54-128%	---	---
Benzo(b)fluoranthene	3.71	0.0300	0.0600	ug/L	2	4.00	---	93	53-131%	---	---
Benzo(k)fluoranthene	3.56	0.0300	0.0600	ug/L	2	4.00	---	89	57-129%	---	---
Benzo(g,h,i)perylene	3.73	0.0200	0.0400	ug/L	2	4.00	---	93	50-134%	---	---
Chrysene	3.35	0.0200	0.0400	ug/L	2	4.00	---	84	59-123%	---	---
Dibenz(a,h)anthracene	3.42	0.0200	0.0400	ug/L	2	4.00	---	86	51-134%	---	---
Fluoranthene	3.55	0.0200	0.0400	ug/L	2	4.00	---	89	57-128%	---	---
Fluorene	2.74	0.0200	0.0400	ug/L	2	4.00	---	69	52-124%	---	---
Indeno(1,2,3-cd)pyrene	3.37	0.0200	0.0400	ug/L	2	4.00	---	84	52-134%	---	---
1-Methylnaphthalene	1.65	0.0400	0.0800	ug/L	2	4.00	---	41	41-120%	---	---
2-Methylnaphthalene	1.60	0.0400	0.0800	ug/L	2	4.00	---	40	40-121%	---	---
Naphthalene	1.61	0.0400	0.0800	ug/L	2	4.00	---	40	40-121%	---	---

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031212 - EPA 3510C (Acid Extraction)						Water						
LCS (1031212-BS2)			Prepared: 03/31/21 10:35		Analyzed: 03/31/21 17:23							
Phenanthrene	3.09	0.0200	0.0400	ug/L	2	4.00	---	77	59-120%	---	---	Q-31
Pyrene	3.50	0.0200	0.0400	ug/L	2	4.00	---	88	57-126%	---	---	
Carbazole	3.85	0.0300	0.0600	ug/L	2	4.00	---	96	60-122%	---	---	
Dibenzofuran	2.46	0.0200	0.0400	ug/L	2	4.00	---	61	53-120%	---	---	
2-Chlorophenol	3.01	0.100	0.200	ug/L	2	4.00	---	75	38-120%	---	---	
4-Chloro-3-methylphenol	3.12	0.200	0.400	ug/L	2	4.00	---	78	52-120%	---	---	
2,4-Dichlorophenol	2.90	0.100	0.200	ug/L	2	4.00	---	72	47-121%	---	---	
2,4-Dimethylphenol	2.83	0.100	0.200	ug/L	2	4.00	---	71	31-124%	---	---	
2,4-Dinitrophenol	3.04	0.500	1.00	ug/L	2	4.00	---	76	23-143%	---	---	
4,6-Dinitro-2-methylphenol	2.90	0.500	1.00	ug/L	2	4.00	---	72	44-137%	---	---	
2-Methylphenol	2.89	0.0500	0.100	ug/L	2	4.00	---	72	30-120%	---	---	
3+4-Methylphenol(s)	2.64	0.0500	0.100	ug/L	2	4.00	---	66	29-120%	---	---	
2-Nitrophenol	2.78	0.200	0.400	ug/L	2	4.00	---	70	47-123%	---	---	
4-Nitrophenol	1.30	0.200	0.400	ug/L	2	4.00	---	33	10-120%	---	---	
Pentachlorophenol (PCP)	3.24	0.200	0.400	ug/L	2	4.00	---	81	35-138%	---	---	
Phenol	1.19	0.400	0.800	ug/L	2	4.00	---	30	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	2.92	0.100	0.200	ug/L	2	4.00	---	73	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.20	0.100	0.200	ug/L	2	4.00	---	80	50-121%	---	---	
2,4,5-Trichlorophenol	2.97	0.100	0.200	ug/L	2	4.00	---	74	53-123%	---	---	
2,4,6-Trichlorophenol	3.09	0.100	0.200	ug/L	2	4.00	---	77	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.74	0.400	0.800	ug/L	2	4.00	---	93	55-135%	---	---	
Butyl benzyl phthalate	4.21	0.400	0.800	ug/L	2	4.00	---	105	53-134%	---	---	
Diethylphthalate	3.45	0.400	0.800	ug/L	2	4.00	---	86	56-125%	---	---	
Dimethylphthalate	3.28	0.400	0.800	ug/L	2	4.00	---	82	45-127%	---	---	
Di-n-butylphthalate	4.06	0.400	0.800	ug/L	2	4.00	---	101	59-127%	---	---	
Di-n-octyl phthalate	4.37	0.400	0.800	ug/L	2	4.00	---	109	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 88 %		Limits: 44-120 %		Dilution: 2x						
2-Fluorobiphenyl (Surr)		57 %		44-120 %		"						
Phenol-d6 (Surr)		31 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		87 %		50-134 %		"						
2-Fluorophenol (Surr)		44 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		77 %		43-140 %		"						

LCS Dup (1031212-BSD2)

Prepared: 03/31/21 10:35 Analyzed: 03/31/21 17:59

Q-19

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031212 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (1031212-BSD2)			Prepared: 03/31/21 10:35		Analyzed: 03/31/21 17:59		Q-19					
EPA 8270E												
Acenaphthene	2.79	0.0200	0.0400	ug/L	2	4.00	---	70	47-122%	22	30%	
Acenaphthylene	3.06	0.0200	0.0400	ug/L	2	4.00	---	77	41-130%	17	30%	
Anthracene	3.25	0.0200	0.0400	ug/L	2	4.00	---	81	57-123%	1	30%	
Benz(a)anthracene	3.55	0.0200	0.0400	ug/L	2	4.00	---	89	58-125%	2	30%	
Benzo(a)pyrene	3.60	0.0300	0.0600	ug/L	2	4.00	---	90	54-128%	3	30%	
Benzo(b)fluoranthene	3.63	0.0300	0.0600	ug/L	2	4.00	---	91	53-131%	2	30%	
Benzo(k)fluoranthene	3.43	0.0300	0.0600	ug/L	2	4.00	---	86	57-129%	4	30%	
Benzo(g,h,i)perylene	3.58	0.0200	0.0400	ug/L	2	4.00	---	90	50-134%	4	30%	
Chrysene	3.25	0.0200	0.0400	ug/L	2	4.00	---	81	59-123%	3	30%	
Dibenz(a,h)anthracene	3.32	0.0200	0.0400	ug/L	2	4.00	---	83	51-134%	3	30%	
Fluoranthene	3.48	0.0200	0.0400	ug/L	2	4.00	---	87	57-128%	2	30%	
Fluorene	3.00	0.0200	0.0400	ug/L	2	4.00	---	75	52-124%	9	30%	
Indeno(1,2,3-cd)pyrene	3.30	0.0200	0.0400	ug/L	2	4.00	---	83	52-134%	2	30%	
1-Methylnaphthalene	2.45	0.0400	0.0800	ug/L	2	4.00	---	61	41-120%	39	30%	Q-24
2-Methylnaphthalene	2.46	0.0400	0.0800	ug/L	2	4.00	---	62	40-121%	42	30%	Q-24
Naphthalene	2.38	0.0400	0.0800	ug/L	2	4.00	---	60	40-121%	39	30%	Q-24
Phenanthrene	3.08	0.0200	0.0400	ug/L	2	4.00	---	77	59-120%	0.3	30%	
Pyrene	3.37	0.0200	0.0400	ug/L	2	4.00	---	84	57-126%	4	30%	
Carbazole	3.76	0.0300	0.0600	ug/L	2	4.00	---	94	60-122%	2	30%	
Dibenzofuran	2.77	0.0200	0.0400	ug/L	2	4.00	---	69	53-120%	12	30%	
2-Chlorophenol	3.07	0.100	0.200	ug/L	2	4.00	---	77	38-120%	2	30%	
4-Chloro-3-methylphenol	3.07	0.200	0.400	ug/L	2	4.00	---	77	52-120%	2	30%	
2,4-Dichlorophenol	2.90	0.100	0.200	ug/L	2	4.00	---	73	47-121%	0.3	30%	
2,4-Dimethylphenol	2.89	0.100	0.200	ug/L	2	4.00	---	72	31-124%	2	30%	
2,4-Dinitrophenol	3.10	0.500	1.00	ug/L	2	4.00	---	77	23-143%	2	30%	Q-31
4,6-Dinitro-2-methylphenol	2.81	0.500	1.00	ug/L	2	4.00	---	70	44-137%	3	30%	
2-Methylphenol	2.88	0.0500	0.100	ug/L	2	4.00	---	72	30-120%	0.5	30%	
3+4-Methylphenol(s)	2.62	0.0500	0.100	ug/L	2	4.00	---	65	29-120%	1	30%	
2-Nitrophenol	2.91	0.200	0.400	ug/L	2	4.00	---	73	47-123%	5	30%	
4-Nitrophenol	1.24	0.200	0.400	ug/L	2	4.00	---	31	10-120%	5	30%	
Pentachlorophenol (PCP)	3.20	0.200	0.400	ug/L	2	4.00	---	80	35-138%	1	30%	
Phenol	1.16	0.400	0.800	ug/L	2	4.00	---	29	10-120%	2	30%	
2,3,4,6-Tetrachlorophenol	2.90	0.100	0.200	ug/L	2	4.00	---	72	50-128%	0.9	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1031212 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (1031212-BSD2)			Prepared: 03/31/21 10:35 Analyzed: 03/31/21 17:59						Q-19			
2,3,5,6-Tetrachlorophenol	3.14	0.100	0.200	ug/L	2	4.00	---	79	50-121%	2	30%	
2,4,5-Trichlorophenol	2.99	0.100	0.200	ug/L	2	4.00	---	75	53-123%	0.5	30%	
2,4,6-Trichlorophenol	3.09	0.100	0.200	ug/L	2	4.00	---	77	50-125%	0.07	30%	
Bis(2-ethylhexyl)phthalate	3.69	0.400	0.800	ug/L	2	4.00	---	92	55-135%	1	30%	
Butyl benzyl phthalate	4.10	0.400	0.800	ug/L	2	4.00	---	103	53-134%	3	30%	
Diethylphthalate	3.33	0.400	0.800	ug/L	2	4.00	---	83	56-125%	4	30%	
Dimethylphthalate	3.17	0.400	0.800	ug/L	2	4.00	---	79	45-127%	3	30%	
Di-n-butylphthalate	3.96	0.400	0.800	ug/L	2	4.00	---	99	59-127%	3	30%	
Di-n-octyl phthalate	4.33	0.400	0.800	ug/L	2	4.00	---	108	51-140%	0.9	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
			Recovery: 91 %	Limits: 44-120 %	Dilution: 2x							
<i>2-Fluorobiphenyl (Surr)</i>			63 %	44-120 %	"							
<i>Phenol-d6 (Surr)</i>			30 %	10-133 %	"							
<i>p-Terphenyl-d14 (Surr)</i>			84 %	50-134 %	"							
<i>2-Fluorophenol (Surr)</i>			44 %	19-120 %	"							
<i>2,4,6-Tribromophenol (Surr)</i>			76 %	43-140 %	"							

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Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040156 - EPA 3015A						Water						
Blank (1040156-BLK1)			Prepared: 04/06/21 09:05		Analyzed: 04/06/21 22:43							
EPA 200.8												
Chromium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
LCS (1040156-BS1)			Prepared: 04/06/21 09:05		Analyzed: 04/06/21 22:47							
EPA 200.8												
Chromium	51.1	0.500	1.00	ug/L	1	55.6	---	92	85-115%	---	---	
Mercury	1.06	0.0400	0.0800	ug/L	1	1.11	---	95	85-115%	---	---	
Zinc	54.3	2.00	4.00	ug/L	1	55.6	---	98	85-115%	---	---	
Duplicate (1040156-DUP1)			Prepared: 04/06/21 09:05		Analyzed: 04/06/21 23:05							
QC Source Sample: Non-SDG (A1C1047-20)												
Chromium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Zinc	6.49	2.00	4.00	ug/L	1	---	6.68	---	---	3	20%	
Matrix Spike (1040156-MS1)			Prepared: 04/06/21 09:05		Analyzed: 04/06/21 23:57							
QC Source Sample: SW-2(032821) (A1C1109-02)												
EPA 200.8												
Chromium	51.4	0.500	1.00	ug/L	1	55.6	ND	93	70-130%	---	---	
Mercury	1.06	0.0400	0.0800	ug/L	1	1.11	ND	95	70-130%	---	---	
Zinc	96.7	2.00	4.00	ug/L	1	55.6	41.7	99	70-130%	---	---	
Matrix Spike (1040156-MS2)			Prepared: 04/06/21 09:05		Analyzed: 04/07/21 00:50							
QC Source Sample: Non-SDG (A1C1217-02)												
EPA 200.8												
Chromium	172	5.00	10.0	ug/L	10	55.6	118	97	70-130%	---	---	
Mercury	1.01	0.400	0.800	ug/L	10	1.11	ND	91	70-130%	---	---	
Zinc	64.2	20.0	40.0	ug/L	10	55.6	ND	116	70-130%	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1C1109 - 04 27 21 1611

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040504 - EPA 3015A						Water						
Blank (1040504-BLK1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 15:50									
EPA 200.8-LL												
Arsenic	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.00900	0.0180	ug/L	1	---	---	---	---	---	---	
LCS (1040504-BS1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 15:57									
EPA 200.8-LL												
Arsenic	5.75	0.0500	0.100	ug/L	1	5.56	---	103	85-115%	---	---	
Cadmium	5.72	0.00900	0.0180	ug/L	1	5.56	---	103	85-115%	---	---	
Duplicate (1040504-DUP1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 16:32									
QC Source Sample: SW-1(032821) (A1C1109-01)												
EPA 200.8-LL												
Arsenic	0.124	0.0500	0.100	ug/L	1	---	0.143	---	---	15	20%	
Duplicate (1040504-DUP2)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 20:26									
QC Source Sample: SW-1(032821) (A1C1109-01RE1)												
EPA 200.8-LL												
Cadmium	0.0316	0.00900	0.0180	ug/L	1	---	0.0379	---	---	18	20%	Q-16
Matrix Spike (1040504-MS1)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 16:39									
QC Source Sample: SW-1(032821) (A1C1109-01)												
EPA 200.8-LL												
Arsenic	6.03	0.0500	0.100	ug/L	1	5.56	0.143	106	70-130%	---	---	
Matrix Spike (1040504-MS2)			Prepared: 04/14/21 15:50 Analyzed: 04/19/21 20:32									
QC Source Sample: SW-1(032821) (A1C1109-01RE1)												
EPA 200.8-LL												
Cadmium	5.53	0.00900	0.0180	ug/L	1	5.56	0.0379	99	70-130%	---	---	Q-16

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611****QUALITY CONTROL (QC) SAMPLE RESULTS****Solid and Moisture Determinations**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040705 - Total Suspended Solids						Water						
Blank (1040705-BLK1)			Prepared: 04/20/21 13:10 Analyzed: 04/22/21 10:49									
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Duplicate (1040705-DUP1)			Prepared: 04/20/21 13:10 Analyzed: 04/22/21 10:49									
QC Source Sample: SW-1(032821) (A1C1109-01)												
SM 2540 D												
Total Suspended Solids	10.0	5.00	5.00	mg/L	1	---	8.00	---	---	22	10%	H-06, Q-05
Reference (1040705-SRM1)			Prepared: 04/20/21 13:10 Analyzed: 04/22/21 10:49									
SM 2540 D												
Total Suspended Solids	962			mg/L	1	951		101	87-116%	---	---	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1040078							
A1C1109-01	Water	NWTPH-Dx	03/28/21 15:55	04/02/21 12:02	1050mL/5mL	1000mL/5mL	0.95
A1C1109-02	Water	NWTPH-Dx	03/28/21 16:00	04/02/21 12:02	1070mL/5mL	1000mL/5mL	0.94
A1C1109-03	Water	NWTPH-Dx	03/28/21 16:05	04/02/21 12:02	1070mL/5mL	1000mL/5mL	0.94

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1031194							
A1C1109-01	Water	NWTPH-Gx (MS)	03/28/21 15:55	03/31/21 10:00	5mL/5mL	5mL/5mL	1.00
A1C1109-02	Water	NWTPH-Gx (MS)	03/28/21 16:00	03/31/21 10:00	5mL/5mL	5mL/5mL	1.00
A1C1109-03	Water	NWTPH-Gx (MS)	03/28/21 16:05	03/31/21 10:00	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1031194							
A1C1109-01	Water	EPA 8260D	03/28/21 15:55	03/31/21 10:00	5mL/5mL	5mL/5mL	1.00
A1C1109-02	Water	EPA 8260D	03/28/21 16:00	03/31/21 10:00	5mL/5mL	5mL/5mL	1.00
A1C1109-03	Water	EPA 8260D	03/28/21 16:05	03/31/21 10:00	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1040059							
A1C1109-01	Water	EPA 8260D SIM	03/28/21 15:55	04/02/21 12:37	5mL/5mL	5mL/5mL	1.00
A1C1109-02	Water	EPA 8260D SIM	03/28/21 16:00	04/02/21 12:37	5mL/5mL	5mL/5mL	1.00
A1C1109-03	Water	EPA 8260D SIM	03/28/21 16:05	04/02/21 12:37	5mL/5mL	5mL/5mL	1.00
A1C1109-04	Water	EPA 8260D SIM	03/28/21 00:00	04/02/21 12:37	5mL/5mL	5mL/5mL	1.00
A1C1109-05	Water	EPA 8260D SIM	03/28/21 00:00	04/02/21 12:37	5mL/5mL	5mL/5mL	1.00
A1C1109-06	Water	EPA 8260D SIM	03/28/21 00:00	04/02/21 12:37	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls by EPA 8082A

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Philip Nerenberg, Lab Director

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1C1109 - 04 27 21 1611****SAMPLE PREPARATION INFORMATION****Polychlorinated Biphenyls by EPA 8082A****Prep: EPA 3510C (Neutral pH)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1040065							
A1C1109-01	Water	EPA 8082A	03/28/21 15:55	04/02/21 10:31	1000mL/2mL	1000mL/2mL	1.00
A1C1109-02	Water	EPA 8082A	03/28/21 16:00	04/02/21 10:31	1070mL/2mL	1000mL/2mL	0.94
A1C1109-03	Water	EPA 8082A	03/28/21 16:05	04/02/21 10:31	1070mL/2mL	1000mL/2mL	0.94

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1031212							
A1C1109-01RE2	Water	EPA 8270E	03/28/21 15:55	03/31/21 15:07	980mL/1mL	1000mL/1mL	1.02
A1C1109-02RE1	Water	EPA 8270E	03/28/21 16:00	03/31/21 15:07	1070mL/1mL	1000mL/1mL	0.94
A1C1109-03RE1	Water	EPA 8270E	03/28/21 16:05	03/31/21 15:07	1070mL/1mL	1000mL/1mL	0.94

Total Metals by EPA 200.8 (ICPMS)**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1040156							
A1C1109-01	Water	EPA 200.8	03/28/21 15:55	04/06/21 09:05	45mL/50mL	45mL/50mL	1.00
A1C1109-02	Water	EPA 200.8	03/28/21 16:00	04/06/21 09:05	45mL/50mL	45mL/50mL	1.00
A1C1109-03	Water	EPA 200.8	03/28/21 16:05	04/06/21 09:05	45mL/50mL	45mL/50mL	1.00

Total Metals by EPA 200.8 (ICPMS) - Low Level**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1040504							
A1C1109-01	Water	EPA 200.8-LL	03/28/21 15:55	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C1109-01RE1	Water	EPA 200.8-LL	03/28/21 15:55	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C1109-02	Water	EPA 200.8-LL	03/28/21 16:00	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C1109-02RE3	Water	EPA 200.8-LL	03/28/21 16:00	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C1109-03	Water	EPA 200.8-LL	03/28/21 16:05	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00
A1C1109-03RE1	Water	EPA 200.8-LL	03/28/21 16:05	04/14/21 15:50	45mL/50mL	45mL/50mL	1.00

Solid and Moisture Determinations

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C1109 - 04 27 21 1611

SAMPLE PREPARATION INFORMATION

Solid and Moisture Determinations

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1040705</u>							
A1C1109-01	Water	SM 2540 D	03/28/21 15:55	04/20/21 13:10			NA
A1C1109-02	Water	SM 2540 D	03/28/21 16:00	04/20/21 13:10			NA
A1C1109-03	Water	SM 2540 D	03/28/21 16:05	04/20/21 13:10			NA

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Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C1109 - 04 27 21 1611

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- E** Estimated Value. The result is above the calibration range of the instrument.
- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- F-12** The result for this hydrocarbon range is primarily due to the presence of individual analyte peaks in the quantitation range. No fuel pattern detected.
- H-06** This sample was received, or the analysis requested, outside the recommended holding time.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-24** The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +15%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -5%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.

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503-718-2323

ORELAP ID: OR100062

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Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

Q-56 Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

R-04 Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.

Apex Laboratories

A handwritten signature in black ink that reads "Philip Nerenberg".

Philip Nerenberg, Lab Director

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Project Number: **BCSAmerica-1-02**

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Report ID:

A1C1109 - 04 27 21 1611

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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A1C1109 - 04 27 21 1611

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1C1109 - 04 27 21 1611

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1C1109 - 04 27 21 1611

APEX LABS COOLER RECEIPT FORM

Client: GeoDesign Element WO#: A1 C1109Project/Project #: Former Automatic Vending Co. / BCSAmerica-1-02

Delivery Info:

Date/time received: 3/29/21 @ 730 By: SeDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 3/29/21 @ 739 By: SeChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.9</u>	<u>2.6</u>	<u>0.1</u>				
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Ice type: (Gel/Real/Other)	<u>gel</u>	<u>gel</u>	<u>gel</u>				
Condition:	<u>good</u>	<u>good</u>	<u>good</u>				

Cooler out of temp? (Y/N) ☒ Possible reason why:Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 3/29/21 @ 1200 By: AKKAll samples intact? Yes ☒ No ☐ Comments: _____Bottle labels/COCs agree? Yes ☒ No ☐ Comments: TBS #2703COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☒ No ☐ NA ☐Comments SW-1 15 HSWater samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information:

Labeled by: AKKWitness: SeCooler Inspected by: AKK

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg, Lab Director

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-55215-1
Client Project/Site: A1C1109

For:

Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Philip Nerenberg



Authorized for release by:
4/13/2021 8:56:37 AM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Job ID: 570-55215-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative 570-55215-1

Comments

No additional comments.

Receipt

The samples were received on 3/30/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6° C.

GC/MS Semi VOA

Method Organotins SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-140408 and analytical batch 570-142552 recovered outside control limits for the following analytes: Tetraethyltin and Monobutyltin. Both percent recoveries were within passing QC limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Client Sample ID: SW-1(032821)

Lab Sample ID: 570-55215-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monobutyltin	61	*1	2.7	2.2	ng/L	1		Organotins SIM	Total/NA

Client Sample ID: SW-2(032821)

Lab Sample ID: 570-55215-2

No Detections.

Client Sample ID: SW-2-DUP(032821)

Lab Sample ID: 570-55215-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Client Sample ID: SW-1(032821)

Date Collected: 03/28/21 15:55

Date Received: 03/30/21 10:00

Lab Sample ID: 570-55215-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND	*1	2.7	1.8	ng/L		04/01/21 20:34	04/12/21 14:35	1
Tributyltin	ND		2.7	1.2	ng/L		04/01/21 20:34	04/12/21 14:35	1
Dibutyltin	ND		2.7	1.6	ng/L		04/01/21 20:34	04/12/21 14:35	1
Monobutyltin	61	*1	2.7	2.2	ng/L		04/01/21 20:34	04/12/21 14:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	43		10 - 120	04/01/21 20:34	04/12/21 14:35	1

Client Sample ID: SW-2(032821)

Date Collected: 03/28/21 16:00

Date Received: 03/30/21 10:00

Lab Sample ID: 570-55215-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND	*1	2.5	1.6	ng/L		04/01/21 20:34	04/12/21 14:53	1
Tributyltin	ND		2.5	1.1	ng/L		04/01/21 20:34	04/12/21 14:53	1
Dibutyltin	ND		2.5	1.5	ng/L		04/01/21 20:34	04/12/21 14:53	1
Monobutyltin	ND	*1	2.5	1.9	ng/L		04/01/21 20:34	04/12/21 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	52		10 - 120	04/01/21 20:34	04/12/21 14:53	1

Client Sample ID: SW-2-DUP(032821)

Date Collected: 03/28/21 16:05

Date Received: 03/30/21 10:00

Lab Sample ID: 570-55215-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND	*1	2.4	1.6	ng/L		04/01/21 20:34	04/12/21 15:11	1
Tributyltin	ND		2.4	1.1	ng/L		04/01/21 20:34	04/12/21 15:11	1
Dibutyltin	ND		2.4	1.4	ng/L		04/01/21 20:34	04/12/21 15:11	1
Monobutyltin	ND	*1	2.4	1.9	ng/L		04/01/21 20:34	04/12/21 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	53		10 - 120	04/01/21 20:34	04/12/21 15:11	1

Surrogate Summary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
570-55215-1	SW-1(032821)	43
570-55215-2	SW-2(032821)	52
570-55215-3	SW-2-DUP(032821)	53
LCS 570-140408/2-A	Lab Control Sample	50
LCSD 570-140408/3-A	Lab Control Sample Dup	52
MB 570-140408/1-A	Method Blank	47

Surrogate Legend

TPTT = Triphenyltin

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-140408/1-A

Matrix: Water

Analysis Batch: 142552

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	1.9	ng/L		04/01/21 20:34	04/12/21 13:40	1
Tributyltin	ND		3.0	1.4	ng/L		04/01/21 20:34	04/12/21 13:40	1
Dibutyltin	ND		3.0	1.8	ng/L		04/01/21 20:34	04/12/21 13:40	1
Monobutyltin	ND		3.0	2.4	ng/L		04/01/21 20:34	04/12/21 13:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	47		10 - 120	04/01/21 20:34	04/12/21 13:40	1

Lab Sample ID: LCS 570-140408/2-A

Matrix: Water

Analysis Batch: 142552

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrabutyltin	200	123.4		ng/L		62	21 - 124
Tributyltin	200	95.26		ng/L		48	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tripentyltin	50		10 - 120

Lab Sample ID: LCSD 570-140408/3-A

Matrix: Water

Analysis Batch: 142552

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 140408

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrabutyltin	200	172.5	*1	ng/L		86	21 - 124	33	30
Tributyltin	200	122.4		ng/L		61	10 - 120	25	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tripentyltin	52		10 - 120

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

GC/MS Semi VOA

Prep Batch: 140408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-55215-1	SW-1(032821)	Total/NA	Water	Organotin	
570-55215-2	SW-2(032821)	Total/NA	Water	Organotin	
570-55215-3	SW-2-DUP(032821)	Total/NA	Water	Organotin	
MB 570-140408/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-140408/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-140408/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

Analysis Batch: 142552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-55215-1	SW-1(032821)	Total/NA	Water	Organotins SIM	140408
570-55215-2	SW-2(032821)	Total/NA	Water	Organotins SIM	140408
570-55215-3	SW-2-DUP(032821)	Total/NA	Water	Organotins SIM	140408
MB 570-140408/1-A	Method Blank	Total/NA	Water	Organotins SIM	140408
LCS 570-140408/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	140408
LCSD 570-140408/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	140408

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Client Sample ID: SW-1(032821)

Lab Sample ID: 570-55215-1

Date Collected: 03/28/21 15:55

Matrix: Water

Date Received: 03/30/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1092.9 mL	1 mL	140408	04/01/21 20:34	OM8W	ECL 1
Total/NA	Analysis	Organotins SIM		1			142552	04/12/21 14:35	AJ2Q	ECL 1
Instrument ID: GCMSY										

Client Sample ID: SW-2(032821)

Lab Sample ID: 570-55215-2

Date Collected: 03/28/21 16:00

Matrix: Water

Date Received: 03/30/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1220 mL	1 mL	140408	04/01/21 20:34	OM8W	ECL 1
Total/NA	Analysis	Organotins SIM		1			142552	04/12/21 14:53	AJ2Q	ECL 1
Instrument ID: GCMSY										

Client Sample ID: SW-2-DUP(032821)

Lab Sample ID: 570-55215-3

Date Collected: 03/28/21 16:05

Matrix: Water

Date Received: 03/30/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1236.1 mL	1 mL	140408	04/01/21 20:34	OM8W	ECL 1
Total/NA	Analysis	Organotins SIM		1			142552	04/12/21 15:11	AJ2Q	ECL 1
Instrument ID: GCMSY										

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Laboratory: Eurofins Calscience LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	CA300001	01-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
Organotins SIM	Organotin	Water	Dibutyltin
Organotins SIM	Organotin	Water	Monobutyltin
Organotins SIM	Organotin	Water	Tetrabutyltin
Organotins SIM	Organotin	Water	Tributyltin
Washington	State	C916-18	10-11-21

Method Summary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Method	Method Description	Protocol	Laboratory
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	ECL 1
Organotin	Extraction (Organotins)	WRC	ECL 1

Protocol References:

Lab SOP = Laboratory Standard Operating Procedure

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A1C1109

Job ID: 570-55215-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-55215-1	SW-1(032821)	Water	03/28/21 15:55	03/30/21 10:00	
570-55215-2	SW-2(032821)	Water	03/28/21 16:00	03/30/21 10:00	
570-55215-3	SW-2-DUP(032821)	Water	03/28/21 16:05	03/30/21 10:00	

55215

SUBCONTRACT ORDER

Apex Laboratories

OB Shah A1C1109 *hy*

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone : (714) 895-5494
Fax: (714) 894-7501

Sample Name: SW-1(032821) Water Sampled: 03/28/21 15:55 (A1C1109-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	04/09/21 17:00	04/11/21 15:55	
Containers Supplied:			
(O) L Amber Glass - Non Preserved			
(P) L Amber Glass - Non Preserved			

Sample Name: SW-2(032821) Water Sampled: 03/28/21 16:00 (A1C1109-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	04/09/21 17:00	04/11/21 16:00	
Containers Supplied:			
(O) L Amber Glass - Non Preserved			
(P) L Amber Glass - Non Preserved			

Sample Name: SW-2-DUP(032821) Water Sampled: 03/28/21 16:05 (A1C1109-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	04/09/21 17:00	04/11/21 16:05	
Containers Supplied:			
(O) L Amber Glass - Non Preserved			
(P) L Amber Glass - Non Preserved			

standard TAT



570-55215 Chain of Custody

Released By *[Signature]* Date *3/29/21* Received By *[Signature]* Date *3/30/21 10:00*
Fed Ex (Shipper) Fed Ex (Shipper)

5/12/21



570-55215 Waybill

<https://www.fedex.com/shipping/html/en/PrintFrame.html>

ORIGIN ID: BNOA (503) 718-2323
SAMPLE CONTROL
APEX LABS
6700 SW SANDBURG ST

TIGARD, OR 97223
UNITED STATES US

TO DANIELLE GONSMAN
CAL\$CIENCE
7440 LINCOLN WAY

SHIP DATE: 29MAR21
ACTWGT: 45.00 LB
CAD: 4716258/NET4340

BILL SENDER

GARDEN GROVE CA 92841
(714) 895-5494
REF

PO:

DEPT



560J26EF2/FE4A

FedEx
Express

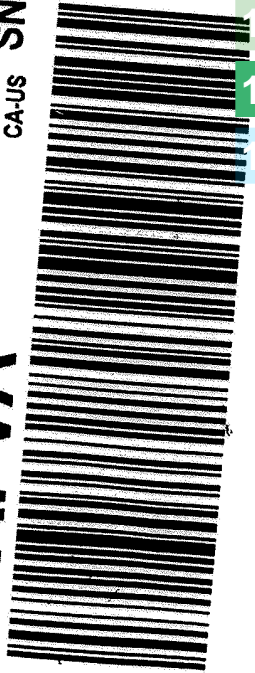


TUE - 30 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 7732 9715 2047
0201

WZ APVA

92841
CA-US SNA



Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-55215-1

Login Number: 55215

List Number: 1

Creator: Ramos, Maribel

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

April 19, 2021

Mr. Philip Nerenberg
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: DXN & PCB Subcontract
Work Order: 17927
SDG: A1C1109

Dear Mr. Nerenberg:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 31, 2021. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Alexis Finks for
Cynde Larkins
Project Manager

Enclosures

SUBCONTRACT ORDER

Apex Laboratories

A1C1109

CFA WO #17927

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone: (910) 795-0421
Fax: -

Sample Name: SW-1(032821) Water Sampled: 03/28/21 15:55 (A1C1109-01)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	04/09/21 17:00	03/28/22 15:55	
Containers Supplied:			
(M) 1 L Amber Glass - Non Preserved			
(N) 1 L Amber Glass - Non Preserved			

Sample Name: SW-2(032821) Water Sampled: 03/28/21 16:00 (A1C1109-02)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	04/09/21 17:00	03/28/22 16:00	
Containers Supplied:			
(M) 1 L Amber Glass - Non Preserved			
(N) 1 L Amber Glass - Non Preserved			

Sample Name: SW-2-DUP(032821) Water Sampled: 03/28/21 16:05 (A1C1109-03)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	04/09/21 17:00	03/28/22 16:05	
Containers Supplied:			
(M) 1 L Amber Glass - Non Preserved			
(N) 1 L Amber Glass - Non Preserved			

Stander

Released By

Date

Received By

Date

Fed Ex (Shipper)

Fed Ex (Shipper)

Released By

Date

Received By

Date

SAMPLE RECEIPT CHECKLIST
Cape Fear Analytical

Client: <u>Apex</u>	Work Order: <u>17927</u>
Shipping Company: <u>FedEx</u>	Date/Time Received: <u>3/31/21</u> <u>11:50</u>

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?			<input checked="" type="checkbox"/>
Samples < 2x background?			<input checked="" type="checkbox"/>

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?			<input checked="" type="checkbox"/>	Seal intact? Yes No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bag <u>loose ice</u> blue ice dry ice none other (describe) Temperature Blank present: <u>Yes</u> No <u>3.0 + 0.1 = 3.1</u>
5 Aqueous samples found to have visible solids?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: <u>-01, -03 minimal solids</u>
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample IDs, containers affected and pH observed: <u>all pH = 7</u> If preservative added, Lot#:
7 Samples requiring preservation have no residual chlorine?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: If preservative added, Lot#:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?			<input checked="" type="checkbox"/>	List type and number of containers / Sample IDs, containers affected: <u>received 2 broken bottles - see below</u> <u>received 4-1L VM amber bottles intact</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

broken bottles
AIC1109-02N SW-2(032821)
SW-1(032821)

bottles received intact
AIC1109-01N
AIC1109-02m
AIC1109-03m,N

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A1C1109
Work Order 17927**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Liquids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3520C
Analytical Batch Number: 46590
Clean Up Batch Number: 46588
Extraction Batch Number: 46587

Sample Analysis

Samples were received at 3.1°C. (17927001,17927002,17927003).
The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12029087	Method Blank (MB)
12029088	Laboratory Control Sample (LCS)
12029089	Laboratory Control Sample Duplicate (LCSD)
17927001	SW-1(032821)
17927002	SW-2(032821)
17927003	SW-2-DUP(032821)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 20.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information**Certification Statement**

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information**Receipt Temperature**

Samples were received within temperature requirements.

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information**Nonconformance (NCR) Documentation**

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP763_1	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A1C1109 CFA Work Order: 17927


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Erin Suhrie

Date: 19 APR 2021

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C1109
Lab Sample ID: 17927001
Client Sample: 1613B Water
Client ID: SW-1(032821)
Batch ID: 46590
Run Date: 04/16/2021 04:09
Data File: b14apr21a_4-8
Prep Batch: 46587
Prep Date: 14-APR-21

Client: APEX001
Date Collected: 03/28/2021 15:55
Date Received: 03/31/2021 11:50

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3520C
Prep Aliquot: 1013.6 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.90	pg/L	1.90	9.87
40321-76-4	1,2,3,7,8-PeCDD	U	1.78	pg/L	1.78	49.3
39227-28-6	1,2,3,4,7,8-HxCDD	U	2.37	pg/L	2.37	49.3
57653-85-7	1,2,3,6,7,8-HxCDD	JK	2.62	pg/L	2.39	49.3
19408-74-3	1,2,3,7,8,9-HxCDD	U	2.41	pg/L	2.41	49.3
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	44.8	pg/L	8.25	49.3
3268-87-9	1,2,3,4,6,7,8,9-OCDD		230	pg/L	11.4	98.7
51207-31-9	2,3,7,8-TCDF	U	1.84	pg/L	1.84	9.87
57117-41-6	1,2,3,7,8-PeCDF	U	1.72	pg/L	1.72	49.3
57117-31-4	2,3,4,7,8-PeCDF	U	1.54	pg/L	1.54	49.3
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.16	pg/L	1.16	49.3
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.16	pg/L	1.16	49.3
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.17	pg/L	1.17	49.3
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.66	pg/L	1.66	49.3
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.62	pg/L	1.32	49.3
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	1.88	pg/L	1.88	49.3
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	5.39	pg/L	5.39	98.7
41903-57-5	Total TeCDD	U	1.90	pg/L	1.90	9.87
36088-22-9	Total PeCDD	U	1.78	pg/L	1.78	49.3
34465-46-8	Total HxCDD	JK	18.2	pg/L	2.37	49.3
37871-00-4	Total HpCDD	J	109	pg/L	8.25	49.3
30402-14-3	Total TeCDF	U	1.84	pg/L	1.84	9.87
30402-15-4	Total PeCDF	U	1.24	pg/L	1.24	49.3
55684-94-1	Total HxCDF	JK	1.89	pg/L	1.16	49.3
38998-75-3	Total HpCDF	J	5.64	pg/L	1.32	49.3
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.805	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		3.50	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1550	1970	pg/L	78.5	(25%-164%)
13C-1,2,3,7,8-PeCDD		1480	1970	pg/L	74.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1330	1970	pg/L	67.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1420	1970	pg/L	72.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1410	1970	pg/L	71.3	(23%-140%)
13C-OCDD		2500	3950	pg/L	63.4	(17%-157%)
13C-2,3,7,8-TCDF		1350	1970	pg/L	68.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		1430	1970	pg/L	72.6	(24%-185%)
13C-2,3,4,7,8-PeCDF		1490	1970	pg/L	75.3	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1320	1970	pg/L	67.1	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1420	1970	pg/L	72.1	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1430	1970	pg/L	72.4	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1410	1970	pg/L	71.5	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A1C1109	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17927001	Date Collected:	03/28/2021 15:55	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	03/31/2021 11:50		
Client ID:	SW-1(032821)			Prep Basis:	As Received
Batch ID:	46590	Method:	EPA Method 1613B		
Run Date:	04/16/2021 04:09	Analyst:	MJC	Instrument:	HRP763
Data File:	b14apr21a_4-8			Dilution:	1
Prep Batch:	46587	Prep Method:	SW846 3520C		
Prep Date:	14-APR-21	Prep Aliquot:	1013.6 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1330	1970	pg/L	67.6	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1370	1970	pg/L	69.3	(26%-138%)
37Cl-2,3,7,8-TCDD			189	197	pg/L	95.9	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C1109
Lab Sample ID: 17927002
Client Sample: 1613B Water
Client ID: SW-2(032821)
Batch ID: 46590
Run Date: 04/16/2021 04:59
Data File: b14apr21a_4-9
Prep Batch: 46587
Prep Date: 14-APR-21

Client: APEX001
Date Collected: 03/28/2021 16:00
Date Received: 03/31/2021 11:50

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3520C
Prep Aliquot: 1044.3 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	2.09	pg/L	2.09	9.58
40321-76-4	1,2,3,7,8-PeCDD	U	2.68	pg/L	2.68	47.9
39227-28-6	1,2,3,4,7,8-HxCDD	U	3.50	pg/L	3.50	47.9
57653-85-7	1,2,3,6,7,8-HxCDD	U	3.37	pg/L	3.37	47.9
19408-74-3	1,2,3,7,8,9-HxCDD	U	3.47	pg/L	3.47	47.9
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	34.6	pg/L	6.36	47.9
3268-87-9	1,2,3,4,6,7,8,9-OCDD		245	pg/L	22.8	95.8
51207-31-9	2,3,7,8-TCDF	U	2.51	pg/L	2.51	9.58
57117-41-6	1,2,3,7,8-PeCDF	U	1.70	pg/L	1.70	47.9
57117-31-4	2,3,4,7,8-PeCDF	U	1.57	pg/L	1.57	47.9
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.40	pg/L	1.40	47.9
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.41	pg/L	1.41	47.9
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.40	pg/L	1.40	47.9
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.28	pg/L	2.28	47.9
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	1.82	pg/L	1.69	47.9
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	3.01	pg/L	3.01	47.9
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	7.41	pg/L	7.41	95.8
41903-57-5	Total TeCDD	U	2.09	pg/L	2.09	9.58
36088-22-9	Total PeCDD	U	2.68	pg/L	2.68	47.9
34465-46-8	Total HxCDD	JK	15.0	pg/L	3.37	47.9
37871-00-4	Total HpCDD	J	91.7	pg/L	6.36	47.9
30402-14-3	Total TeCDF	U	2.51	pg/L	2.51	9.58
30402-15-4	Total PeCDF	U	1.57	pg/L	1.57	47.9
55684-94-1	Total HxCDF	U	1.40	pg/L	1.40	47.9
38998-75-3	Total HpCDF	J	1.82	pg/L	1.69	47.9
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.438	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		4.07	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1330	1920	pg/L	69.3	(25%-164%)
13C-1,2,3,7,8-PeCDD		1180	1920	pg/L	61.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1090	1920	pg/L	57.1	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1250	1920	pg/L	65.3	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1120	1920	pg/L	58.5	(23%-140%)
13C-OCDD		1830	3830	pg/L	47.8	(17%-157%)
13C-2,3,7,8-TCDF		1100	1920	pg/L	57.3	(24%-169%)
13C-1,2,3,7,8-PeCDF		1150	1920	pg/L	60.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		1190	1920	pg/L	62.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1140	1920	pg/L	59.4	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1210	1920	pg/L	63.1	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1230	1920	pg/L	64.3	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1120	1920	pg/L	58.3	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A1C1109	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17927002	Date Collected:	03/28/2021 16:00	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	03/31/2021 11:50		
Client ID:	SW-2(032821)			Prep Basis:	As Received
Batch ID:	46590	Method:	EPA Method 1613B		
Run Date:	04/16/2021 04:59	Analyst:	MJC	Instrument:	HRP763
Data File:	b14apr21a_4-9			Dilution:	1
Prep Batch:	46587	Prep Method:	SW846 3520C		
Prep Date:	14-APR-21	Prep Aliquot:	1044.3 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1100	1920	pg/L	57.3	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1080	1920	pg/L	56.2	(26%-138%)
37Cl-2,3,7,8-TCDD			175	192	pg/L	91.4	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C1109
Lab Sample ID: 17927003
Client Sample: 1613B Water
Client ID: SW-2-DUP(032821)
Batch ID: 46590
Run Date: 04/16/2021 05:49
Data File: b14apr21a_4-10
Prep Batch: 46587
Prep Date: 14-APR-21

Client: APEX001
Date Collected: 03/28/2021 16:05
Date Received: 03/31/2021 11:50

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3520C
Prep Aliquot: 1046 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.84	pg/L	1.84	9.56
40321-76-4	1,2,3,7,8-PeCDD	U	2.12	pg/L	2.12	47.8
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.07	pg/L	4.07	47.8
57653-85-7	1,2,3,6,7,8-HxCDD	U	3.82	pg/L	3.82	47.8
19408-74-3	1,2,3,7,8,9-HxCDD	U	3.96	pg/L	3.96	47.8
35822-46-9	1,2,3,4,6,7,8-HpCDD		54.6	pg/L	9.75	47.8
3268-87-9	1,2,3,4,6,7,8,9-OCDD		562	pg/L	17.2	95.6
51207-31-9	2,3,7,8-TCDF	U	1.73	pg/L	1.73	9.56
57117-41-6	1,2,3,7,8-PeCDF	U	1.50	pg/L	1.50	47.8
57117-31-4	2,3,4,7,8-PeCDF	U	1.30	pg/L	1.30	47.8
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.42	pg/L	1.42	47.8
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.38	pg/L	1.38	47.8
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.39	pg/L	1.39	47.8
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.16	pg/L	2.16	47.8
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	2.45	pg/L	1.80	47.8
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.72	pg/L	2.72	47.8
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	5.56	pg/L	5.56	95.6
41903-57-5	Total TeCDD	U	1.84	pg/L	1.84	9.56
36088-22-9	Total PeCDD	U	2.12	pg/L	2.12	47.8
34465-46-8	Total HxCDD	JK	18.5	pg/L	3.82	47.8
37871-00-4	Total HpCDD		119	pg/L	9.75	47.8
30402-14-3	Total TeCDF	U	1.73	pg/L	1.73	9.56
30402-15-4	Total PeCDF	U	1.30	pg/L	1.30	47.8
55684-94-1	Total HxCDF	U	1.38	pg/L	1.38	47.8
38998-75-3	Total HpCDF	JK	6.44	pg/L	1.80	47.8
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.739	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		3.95	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1530	1910	pg/L	79.9	(25%-164%)
13C-1,2,3,7,8-PeCDD		1400	1910	pg/L	73.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1210	1910	pg/L	63.2	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1410	1910	pg/L	74.0	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1320	1910	pg/L	68.9	(23%-140%)
13C-OCDD		2300	3820	pg/L	60.2	(17%-157%)
13C-2,3,7,8-TCDF		1280	1910	pg/L	66.9	(24%-169%)
13C-1,2,3,7,8-PeCDF		1360	1910	pg/L	71.1	(24%-185%)
13C-2,3,4,7,8-PeCDF		1420	1910	pg/L	74.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1260	1910	pg/L	65.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1330	1910	pg/L	69.8	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1380	1910	pg/L	72.3	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1350	1910	pg/L	70.6	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1C1109	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	17927003	Date Collected:	03/28/2021 16:05	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	03/31/2021 11:50		
Client ID:	SW-2-DUP(032821)			Prep Basis:	As Received
Batch ID:	46590	Method:	EPA Method 1613B		
Run Date:	04/16/2021 05:49	Analyst:	MJC	Instrument:	HRP763
Data File:	b14apr21a_4-10			Dilution:	1
Prep Batch:	46587	Prep Method:	SW846 3520C		
Prep Date:	14-APR-21	Prep Aliquot:	1046 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1250	1910	pg/L	65.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1330	1910	pg/L	69.4	(26%-138%)
37Cl-2,3,7,8-TCDD			197	191	pg/L	103	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans Surrogate Recovery Report

SDG Number: A1C1109

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12029088	LCS for batch 46587	13C-2,3,7,8-TCDD		84.6	(20%-175%)
		13C-1,2,3,7,8-PeCDD		80.9	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		71.4	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		84.1	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		76.4	(22%-166%)
		13C-OCDD		66.2	(13%-199%)
		13C-2,3,7,8-TCDF		73.1	(22%-152%)
		13C-1,2,3,7,8-PeCDF		77.3	(21%-192%)
		13C-2,3,4,7,8-PeCDF		79.6	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		74.1	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		84.7	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		82.3	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		78.1	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		74.2	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		77.1	(20%-186%)
		37Cl-2,3,7,8-TCDD		99.8	(31%-191%)
12029089	LCSD for batch 46587	13C-2,3,7,8-TCDD		93.9	(20%-175%)
		13C-1,2,3,7,8-PeCDD		87.2	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		71.7	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		80.4	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		74.6	(22%-166%)
		13C-OCDD		62.2	(13%-199%)
		13C-2,3,7,8-TCDF		75.2	(22%-152%)
		13C-1,2,3,7,8-PeCDF		82.6	(21%-192%)
		13C-2,3,4,7,8-PeCDF		86.5	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		71.7	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		79.6	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		78.2	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		77.7	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		71.7	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		73.5	(20%-186%)
		37Cl-2,3,7,8-TCDD		110	(31%-191%)
12029087	MB for batch 46587	13C-2,3,7,8-TCDD		91.5	(25%-164%)
		13C-1,2,3,7,8-PeCDD		82.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		69.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		81.4	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		73.6	(23%-140%)
		13C-OCDD		62.8	(17%-157%)
		13C-2,3,7,8-TCDF		73.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		79.7	(24%-185%)
		13C-2,3,4,7,8-PeCDF		81.4	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		73.9	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		78.4	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		77.1	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		78.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		68.8	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		74.7	(26%-138%)
		37Cl-2,3,7,8-TCDD		107	(35%-197%)
17927001	SW-1(032821)	13C-2,3,7,8-TCDD		78.5	(25%-164%)

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

SDG Number: A1C1109

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
17927001	SW-1(032821)	13C-1,2,3,7,8-PeCDD		74.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		67.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		72.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		71.3	(23%-140%)
		13C-OCDD		63.4	(17%-157%)
		13C-2,3,7,8-TCDF		68.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		72.6	(24%-185%)
		13C-2,3,4,7,8-PeCDF		75.3	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		67.1	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		72.1	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		72.4	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		71.5	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		67.6	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		69.3	(26%-138%)
		37Cl-2,3,7,8-TCDD		95.9	(35%-197%)
17927002	SW-2(032821)	13C-2,3,7,8-TCDD		69.3	(25%-164%)
		13C-1,2,3,7,8-PeCDD		61.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		57.1	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		65.3	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		58.5	(23%-140%)
		13C-OCDD		47.8	(17%-157%)
		13C-2,3,7,8-TCDF		57.3	(24%-169%)
		13C-1,2,3,7,8-PeCDF		60.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		62.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		59.4	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		63.1	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		64.3	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		58.3	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		57.3	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		56.2	(26%-138%)
		37Cl-2,3,7,8-TCDD		91.4	(35%-197%)
17927003	SW-2-DUP(032821)	13C-2,3,7,8-TCDD		79.9	(25%-164%)
		13C-1,2,3,7,8-PeCDD		73.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		63.2	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		74.0	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		68.9	(23%-140%)
		13C-OCDD		60.2	(17%-157%)
		13C-2,3,7,8-TCDF		66.9	(24%-169%)
		13C-1,2,3,7,8-PeCDF		71.1	(24%-185%)
		13C-2,3,4,7,8-PeCDF		74.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		65.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		69.8	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		72.3	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		70.6	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		65.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		69.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		103	(35%-197%)

* Recovery outside Acceptance Limits

**Hi-Res Dioxins/Furans
Surrogate Recovery Report**

SDG Number: A1C1109

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
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* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: A1C1109

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 46587

Matrix: WATER

Lab Sample ID: 12029088

Instrument: HRP763

Analysis Date: 04/15/2021 22:20

Dilution: 1

Analyst: MJC

Prep Batch ID: 46587

Batch ID: 46590

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	200	189	94.7	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	1000	997	99.7	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	1000	994	99.4	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	1000	1000	100	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	1000	1010	101	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	1000	928	92.8	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	2000	1900	94.9	78-144
51207-31-9	LCS 2,3,7,8-TCDF	200	202	101	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	1000	1020	102	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	1000	1010	101	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	1000	1000	100	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	1000	1030	103	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	1000	1000	100	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	1000	1020	102	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	1000	1010	101	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	1000	960	96	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	2000	2000	100	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 2 of 2

SDG Number: A1C1109

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 46587

Matrix: WATER

Lab Sample ID: 12029089

Instrument: HRP763

Analysis Date: 04/15/2021 23:09

Dilution: 1

Analyst: MJC

Prep Batch ID: 46587

Batch ID: 46590

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	200	180	90.1	67-158	4.99	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	1000	988	98.8	70-142	0.933	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	1000	970	97	70-164	2.45	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	1000	979	97.9	76-134	2.65	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	1000	1010	101	64-162	0.730	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	1000	959	95.9	70-140	3.24	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	2000	1900	95.2	78-144	0.284	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	200	193	96.6	75-158	4.51	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	1000	1010	101	80-134	0.281	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	1000	997	99.7	68-160	1.34	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	1000	1010	101	72-134	0.404	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	1000	1020	102	84-130	0.891	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	1000	1010	101	70-156	1.18	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	1000	1020	102	78-130	0.738	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	1000	992	99.2	82-122	2.20	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	1000	997	99.7	78-138	3.77	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	2000	1980	99.2	63-170	0.999	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A1C1109
Client ID: MB for batch 46587
Lab Sample ID: 12029087
Column:

Client: APEX001
Instrument ID: HRP763
Prep Date: 14-APR-21

Matrix: WATER
Data File: b14apr21a_4-3
Analyzed: 04/15/21 23:59

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 46587	12029088	b14apr21a_4-1	04/15/21	2220
02 LCSD for batch 46587	12029089	b14apr21a_4-2	04/15/21	2309
03 SW-1(032821)	17927001	b14apr21a_4-8	04/16/21	0409
04 SW-2(032821)	17927002	b14apr21a_4-9	04/16/21	0459
05 SW-2-DUP(032821)	17927003	b14apr21a_4-10	04/16/21	0549

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1C1109
Lab Sample ID: 12029087
Client Sample: QC for batch 46587
Client ID: MB for batch 46587
Batch ID: 46590
Run Date: 04/15/2021 23:59
Data File: b14apr21a_4-3
Prep Batch: 46587
Prep Date: 14-APR-21

Client: APEX001
Method: EPA Method 1613B
Analyst: MJC
Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER
Prep Basis: As Received
Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.95	pg/L	1.95	10.0
40321-76-4	1,2,3,7,8-PeCDD	U	1.58	pg/L	1.58	50.0
39227-28-6	1,2,3,4,7,8-HxCDD	U	2.42	pg/L	2.42	50.0
57653-85-7	1,2,3,6,7,8-HxCDD	U	2.34	pg/L	2.34	50.0
19408-74-3	1,2,3,7,8,9-HxCDD	U	2.38	pg/L	2.38	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	3.52	pg/L	3.52	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD	U	5.64	pg/L	5.64	100
51207-31-9	2,3,7,8-TCDF	U	2.40	pg/L	2.40	10.0
57117-41-6	1,2,3,7,8-PeCDF	U	1.73	pg/L	1.73	50.0
57117-31-4	2,3,4,7,8-PeCDF	U	1.52	pg/L	1.52	50.0
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.10	pg/L	1.10	50.0
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.09	pg/L	1.09	50.0
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.12	pg/L	1.12	50.0
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.62	pg/L	1.62	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	1.52	pg/L	1.52	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.26	pg/L	2.26	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	6.44	pg/L	6.44	100
41903-57-5	Total TeCDD	U	1.95	pg/L	1.95	10.0
36088-22-9	Total PeCDD	U	1.58	pg/L	1.58	50.0
34465-46-8	Total HxCDD	U	2.34	pg/L	2.34	50.0
37871-00-4	Total HpCDD	U	3.52	pg/L	3.52	50.0
30402-14-3	Total TeCDF	U	2.40	pg/L	2.40	10.0
30402-15-4	Total PeCDF	U	1.52	pg/L	1.52	50.0
55684-94-1	Total HxCDF	U	1.09	pg/L	1.09	50.0
38998-75-3	Total HpCDF	U	1.52	pg/L	1.52	50.0
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.000	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.78	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1830	2000	pg/L	91.5	(25%-164%)
13C-1,2,3,7,8-PeCDD		1650	2000	pg/L	82.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1390	2000	pg/L	69.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1630	2000	pg/L	81.4	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1470	2000	pg/L	73.6	(23%-140%)
13C-OCDD		2510	4000	pg/L	62.8	(17%-157%)
13C-2,3,7,8-TCDF		1470	2000	pg/L	73.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		1590	2000	pg/L	79.7	(24%-185%)
13C-2,3,4,7,8-PeCDF		1630	2000	pg/L	81.4	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1480	2000	pg/L	73.9	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1570	2000	pg/L	78.4	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1540	2000	pg/L	77.1	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1560	2000	pg/L	78.0	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1C1109	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029087			Matrix:	WATER
Client Sample:	QC for batch 46587				
Client ID:	MB for batch 46587			Prep Basis:	As Received
Batch ID:	46590	Method:	EPA Method 1613B		
Run Date:	04/15/2021 23:59	Analyst:	MJC	Instrument:	HRP763
Data File:	b14apr21a_4-3			Dilution:	1
Prep Batch:	46587	Prep Method:	SW846 3520C		
Prep Date:	14-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1380	2000	pg/L	68.8	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1490	2000	pg/L	74.7	(26%-138%)
37Cl-2,3,7,8-TCDD			214	200	pg/L	107	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number: A1C1109
Lab Sample ID: 12029088
Client Sample: QC for batch 46587
Client ID: LCS for batch 46587
Batch ID: 46590
Run Date: 04/15/2021 22:20
Data File: b14apr21a_4-1
Prep Batch: 46587
Prep Date: 14-APR-21

Client: APEX001

Method: EPA Method 1613B
Analyst: MJC

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		189	pg/L	2.64	10.0
40321-76-4	1,2,3,7,8-PeCDD		997	pg/L	5.48	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		994	pg/L	10.5	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		1000	pg/L	9.56	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		1010	pg/L	10.0	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		928	pg/L	15.4	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1900	pg/L	31.8	100
51207-31-9	2,3,7,8-TCDF		202	pg/L	2.84	10.0
57117-41-6	1,2,3,7,8-PeCDF		1020	pg/L	6.78	50.0
57117-31-4	2,3,4,7,8-PeCDF		1010	pg/L	6.08	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		1000	pg/L	8.84	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1030	pg/L	8.82	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		1000	pg/L	9.46	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		1020	pg/L	13.5	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		1010	pg/L	11.2	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		960	pg/L	18.4	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		2000	pg/L	27.4	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1690	2000	pg/L	84.6	(20%-175%)
13C-1,2,3,7,8-PeCDD		1620	2000	pg/L	80.9	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1430	2000	pg/L	71.4	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1680	2000	pg/L	84.1	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1530	2000	pg/L	76.4	(22%-166%)
13C-OCDD		2650	4000	pg/L	66.2	(13%-199%)
13C-2,3,7,8-TCDF		1460	2000	pg/L	73.1	(22%-152%)
13C-1,2,3,7,8-PeCDF		1550	2000	pg/L	77.3	(21%-192%)
13C-2,3,4,7,8-PeCDF		1590	2000	pg/L	79.6	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1480	2000	pg/L	74.1	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1690	2000	pg/L	84.7	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1650	2000	pg/L	82.3	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1560	2000	pg/L	78.1	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1480	2000	pg/L	74.2	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1540	2000	pg/L	77.1	(20%-186%)
37Cl-2,3,7,8-TCDD		200	200	pg/L	99.8	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number:	A1C1109	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029089			Matrix:	WATER
Client Sample:	QC for batch 46587				
Client ID:	LCSD for batch 46587			Prep Basis:	As Received
Batch ID:	46590	Method:	EPA Method 1613B		
Run Date:	04/15/2021 23:09	Analyst:	MJC	Instrument:	HRP763
Data File:	b14apr21a_4-2			Dilution:	1
Prep Batch:	46587	Prep Method:	SW846 3520C		
Prep Date:	14-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		180	pg/L	2.04	10.0
40321-76-4	1,2,3,7,8-PeCDD		988	pg/L	3.88	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		970	pg/L	12.5	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		979	pg/L	11.4	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		1010	pg/L	12.0	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		959	pg/L	10.4	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1900	pg/L	32.0	100
51207-31-9	2,3,7,8-TCDF		193	pg/L	2.52	10.0
57117-41-6	1,2,3,7,8-PeCDF		1010	pg/L	4.98	50.0
57117-31-4	2,3,4,7,8-PeCDF		997	pg/L	4.28	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		1010	pg/L	8.74	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1020	pg/L	8.74	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		1010	pg/L	8.12	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		1020	pg/L	13.0	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		992	pg/L	8.94	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		997	pg/L	13.7	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1980	pg/L	20.6	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1880	2000	pg/L	93.9	(20%-175%)
13C-1,2,3,7,8-PeCDD		1740	2000	pg/L	87.2	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1430	2000	pg/L	71.7	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1610	2000	pg/L	80.4	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1490	2000	pg/L	74.6	(22%-166%)
13C-OCDD		2490	4000	pg/L	62.2	(13%-199%)
13C-2,3,7,8-TCDF		1500	2000	pg/L	75.2	(22%-152%)
13C-1,2,3,7,8-PeCDF		1650	2000	pg/L	82.6	(21%-192%)
13C-2,3,4,7,8-PeCDF		1730	2000	pg/L	86.5	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1430	2000	pg/L	71.7	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1590	2000	pg/L	79.6	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1560	2000	pg/L	78.2	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1550	2000	pg/L	77.7	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1430	2000	pg/L	71.7	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1470	2000	pg/L	73.5	(20%-186%)
37Cl-2,3,7,8-TCDD		219	200	pg/L	110	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Monday, May 24, 2021

Kyle Haggart
GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

RE: A1D1005 - Former Automatic Vending Co. - BCSAmerica-1-02

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1D1005, which was received by the laboratory on 4/24/2021 at 9:49:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	5.3 degC	Cooler #2	3.3 degC
Cooler #3	4.1 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1(042421)	A1D1005-01	Water	04/24/21 05:45	04/24/21 09:49
SW-2(042421)	A1D1005-02	Water	04/24/21 06:15	04/24/21 09:49
DUP(042421)	A1D1005-03	Water	04/24/21 05:50	04/24/21 09:49
SW-1-TB(042421)	A1D1005-04	Water	04/24/21 00:00	04/24/21 09:49
SW-2-TB(042421)	A1D1005-05	Water	04/24/21 00:00	04/24/21 09:49
DUP-TB(042421)	A1D1005-06	Water	04/24/21 00:00	04/24/21 09:49

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****ANALYTICAL SAMPLE RESULTS****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01RE1)				Matrix: Water		Batch: 1041169		
Diesel	1.01	0.0980	0.196	mg/L	1	05/03/21 07:52	NWTPH-Dx	F-24
Oil	2.91	0.196	0.392	mg/L	1	05/03/21 07:52	NWTPH-Dx	F-24
Surrogate: o-Terphenyl (Surr)		Recovery: 83 %		Limits: 50-150 %	1	05/03/21 07:52	NWTPH-Dx	
SW-2(042421) (A1D1005-02RE1)				Matrix: Water		Batch: 1041169		
Diesel	3.46	0.0962	0.192	mg/L	1	05/03/21 08:14	NWTPH-Dx	F-11
Oil	ND	0.192	0.385	mg/L	1	05/03/21 08:14	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %	1	05/03/21 08:14	NWTPH-Dx	
DUP(042421) (A1D1005-03RE1)				Matrix: Water		Batch: 1041169		
Diesel	0.874	0.0962	0.192	mg/L	1	05/03/21 08:58	NWTPH-Dx	F-24
Oil	2.71	0.192	0.385	mg/L	1	05/03/21 08:58	NWTPH-Dx	F-24
Surrogate: o-Terphenyl (Surr)		Recovery: 96 %		Limits: 50-150 %	1	05/03/21 08:58	NWTPH-Dx	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water			Batch: 1041086			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	04/29/21 20:21	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	04/29/21 20:21	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		97 %	50-150 %	1	04/29/21 20:21	NWTPH-Gx (MS)		
SW-2(042421) (A1D1005-02RE1)		Matrix: Water			Batch: 1041139			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	04/30/21 15:58	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 100 %	Limits: 50-150 %	1	04/30/21 15:58	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	04/30/21 15:58	NWTPH-Gx (MS)		
DUP(042421) (A1D1005-03RE1)		Matrix: Water			Batch: 1041139			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	04/30/21 16:25	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	04/30/21 16:25	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	04/30/21 16:25	NWTPH-Gx (MS)		

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water			Batch: 1041086			
Acetone	87.7	10.0	20.0	ug/L	1	04/29/21 20:21	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/29/21 20:21	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/29/21 20:21	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/29/21 20:21	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/29/21 20:21	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/29/21 20:21	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/29/21 20:21	EPA 8260D	ESTa
Chloromethane	ND	2.50	5.00	ug/L	1	04/29/21 20:21	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/29/21 20:21	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/29/21 20:21	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/29/21 20:21	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	EST
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/29/21 20:21	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/29/21 20:21	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/29/21 20:21	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/29/21 20:21	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/29/21 20:21	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water			Batch: 1041086			
Naphthalene	ND	2.00	4.00	ug/L	1	04/29/21 20:21	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/29/21 20:21	EPA 8260D	
Styrene	ND	1.00	2.00	ug/L	1	04/29/21 20:21	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/29/21 20:21	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/29/21 20:21	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/29/21 20:21	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/29/21 20:21	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/29/21 20:21	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/29/21 20:21</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/29/21 20:21</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/29/21 20:21</i>	<i>EPA 8260D</i>	
SW-2(042421) (A1D1005-02RE1)		Matrix: Water			Batch: 1041139			
Acetone	ND	20.0	20.0	ug/L	1	04/30/21 15:58	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/30/21 15:58	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Bromoform	ND	1.00	2.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/30/21 15:58	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/30/21 15:58	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/30/21 15:58	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 15:58	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/30/21 15:58	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 15:58	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(042421) (A1D1005-02RE1)		Matrix: Water			Batch: 1041139			
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 15:58	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 15:58	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/30/21 15:58	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/30/21 15:58	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/30/21 15:58	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/30/21 15:58	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/30/21 15:58	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/30/21 15:58	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/30/21 15:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/30/21 15:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/30/21 15:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/30/21 15:58	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/30/21 15:58	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/30/21 15:58	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 113 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/30/21 15:58</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 15:58</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 15:58</i>	<i>EPA 8260D</i>	

DUP(042421) (A1D1005-03RE1)		Matrix: Water			Batch: 1041139			
Acetone	89.4	10.0	20.0	ug/L	1	04/30/21 16:25	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/30/21 16:25	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Bromoform	ND	1.00	2.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/30/21 16:25	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/30/21 16:25	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(042421) (A1D1005-03RE1)		Matrix: Water			Batch: 1041139			
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/30/21 16:25	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 16:25	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/30/21 16:25	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 16:25	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 16:25	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/30/21 16:25	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/30/21 16:25	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/30/21 16:25	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/30/21 16:25	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/30/21 16:25	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/30/21 16:25	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/30/21 16:25	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/30/21 16:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/30/21 16:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/30/21 16:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/30/21 16:25	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/30/21 16:25	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/30/21 16:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 112 %		Limits: 80-120 %	1	04/30/21 16:25	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(042421) (A1D1005-03RE1)				Matrix: Water		Batch: 1041139		
Surrogate: Toluene-d8 (Surr)		Recovery: 102 %	Limits: 80-120 %	1	04/30/21 16:25	EPA 8260D		
4-Bromofluorobenzene (Surr)		101 %	80-120 %	1	04/30/21 16:25	EPA 8260D		

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water			Batch: 1041149			
Benzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/30/21 13:49	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/30/21 13:49</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 13:49</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>85 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 13:49</i>	<i>EPA 8260D SIM</i>

SW-2(042421) (A1D1005-02)**Matrix: Water****Batch: 1041149**

Benzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM
Toluene	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/30/21 14:15	EPA 8260D SIM

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(042421) (A1D1005-02)		Matrix: Water			Batch: 1041149			
o-Xylene	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/30/21 14:15	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>102 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/30/21 14:15</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>94 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 14:15</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>85 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 14:15</i>	<i>EPA 8260D SIM</i>

DUP(042421) (A1D1005-03)		Matrix: Water			Batch: 1041149			
Benzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(042421) (A1D1005-03)		Matrix: Water			Batch: 1041149			
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/30/21 14:42	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/30/21 14:42</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 14:42</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>84 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 14:42</i>	<i>EPA 8260D SIM</i>

SW-1-TB(042421) (A1D1005-04)		Matrix: Water			Batch: 1041149		V-01	
Benzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-TB(042421) (A1D1005-04)				Matrix: Water		Batch: 1041149		V-01
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/30/21 12:28	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %	1	04/30/21 12:28	EPA 8260D SIM	
Toluene-d8 (Surr)		95 %		80-120 %	1	04/30/21 12:28	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		84 %		80-120 %	1	04/30/21 12:28	EPA 8260D SIM	
SW-2-TB(042421) (A1D1005-05)				Matrix: Water		Batch: 1041149		V-01
Benzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-TB(042421) (A1D1005-05)		Matrix: Water			Batch: 1041149		V-01	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/30/21 12:55	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/30/21 12:55</i>	<i>EPA 8260D SIM</i>	
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 12:55</i>	<i>EPA 8260D SIM</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>84 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 12:55</i>	<i>EPA 8260D SIM</i>	
DUP-TB(042421) (A1D1005-06)		Matrix: Water			Batch: 1041149		V-01	
Benzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
m,p-Xylene	ND	0.100	0.200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
o-Xylene	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	

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ANALYTICAL REPORT

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Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1D1005 - 05 24 21 1104

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-TB(042421) (A1D1005-06)		Matrix: Water			Batch: 1041149		V-01	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	04/30/21 13:22	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>103 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>04/30/21 13:22</i>	<i>EPA 8260D SIM</i>
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 13:22</i>	<i>EPA 8260D SIM</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>84 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/30/21 13:22</i>	<i>EPA 8260D SIM</i>

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water			Batch: 1050125		C-07	
Aroclor 1016	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
Aroclor 1221	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
Aroclor 1232	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
Aroclor 1242	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
Aroclor 1248	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
Aroclor 1254	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
Aroclor 1260	ND	0.0189	0.0377	ug/L	1	05/05/21 20:05	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 50 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>05/05/21 20:05</i>	<i>EPA 8082A</i>	
SW-2(042421) (A1D1005-02)		Matrix: Water			Batch: 1050125		C-07	
Aroclor 1016	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
Aroclor 1221	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
Aroclor 1232	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
Aroclor 1242	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
Aroclor 1248	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
Aroclor 1254	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
Aroclor 1260	ND	0.0189	0.0377	ug/L	1	05/05/21 20:23	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 57 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>05/05/21 20:23</i>	<i>EPA 8082A</i>	
DUP(042421) (A1D1005-03)		Matrix: Water			Batch: 1050125		C-07	
Aroclor 1016	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
Aroclor 1221	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
Aroclor 1232	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
Aroclor 1242	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
Aroclor 1248	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
Aroclor 1254	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
Aroclor 1260	ND	0.0189	0.0377	ug/L	1	05/05/21 20:40	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 44 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>05/05/21 20:40</i>	<i>EPA 8082A</i>	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water			Batch: 1041137		R-04	
Acenaphthene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Acenaphthylene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Anthracene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Benz(a)anthracene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Benzo(a)pyrene	ND	0.566	1.13	ug/L	40	04/30/21 14:44	EPA 8270E	
Benzo(b)fluoranthene	ND	0.566	1.13	ug/L	40	04/30/21 14:44	EPA 8270E	
Benzo(k)fluoranthene	ND	0.566	1.13	ug/L	40	04/30/21 14:44	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Chrysene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Fluoranthene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Fluorene	ND	0.755	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
1-Methylnaphthalene	ND	0.755	1.51	ug/L	40	04/30/21 14:44	EPA 8270E	
2-Methylnaphthalene	ND	0.755	1.51	ug/L	40	04/30/21 14:44	EPA 8270E	
Naphthalene	ND	0.755	1.51	ug/L	40	04/30/21 14:44	EPA 8270E	
Phenanthrene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Pyrene	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Carbazole	ND	0.566	1.13	ug/L	40	04/30/21 14:44	EPA 8270E	
Dibenzofuran	ND	0.377	0.755	ug/L	40	04/30/21 14:44	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	7.55	15.1	ug/L	40	04/30/21 14:44	EPA 8270E	
Butyl benzyl phthalate	ND	7.55	15.1	ug/L	40	04/30/21 14:44	EPA 8270E	
Diethylphthalate	ND	7.55	15.1	ug/L	40	04/30/21 14:44	EPA 8270E	
Dimethylphthalate	ND	7.55	15.1	ug/L	40	04/30/21 14:44	EPA 8270E	
Di-n-butylphthalate	ND	7.55	15.1	ug/L	40	04/30/21 14:44	EPA 8270E	
Di-n-octyl phthalate	ND	7.55	15.1	ug/L	40	04/30/21 14:44	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	53 %	<i>Limits:</i>	44-120 %	40	04/30/21 14:44	EPA 8270E S-05
<i>2-Fluorobiphenyl (Surr)</i>			58 %		44-120 %	40	04/30/21 14:44	EPA 8270E S-05
<i>Phenol-d6 (Surr)</i>			17 %		10-133 %	40	04/30/21 14:44	EPA 8270E S-05
<i>p-Terphenyl-d14 (Surr)</i>			29 %		50-134 %	40	04/30/21 14:44	EPA 8270E S-05
<i>2-Fluorophenol (Surr)</i>			29 %		19-120 %	40	04/30/21 14:44	EPA 8270E S-05
<i>2,4,6-Tribromophenol (Surr)</i>			107 %		43-140 %	40	04/30/21 14:44	EPA 8270E S-05
SW-2(042421) (A1D1005-02RE1)		Matrix: Water			Batch: 1041137		R-04	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(042421) (A1D1005-02RE1)				Matrix: Water		Batch: 1041137		R-04
Acenaphthene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Acenaphthylene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Anthracene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Benz(a)anthracene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Benzo(a)pyrene	ND	0.291	0.583	ug/L	20	04/30/21 17:05	EPA 8270E	
Benzo(b)fluoranthene	ND	0.291	0.583	ug/L	20	04/30/21 17:05	EPA 8270E	
Benzo(k)fluoranthene	ND	0.291	0.583	ug/L	20	04/30/21 17:05	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Chrysene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Fluoranthene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Fluorene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
1-Methylnaphthalene	ND	0.388	0.777	ug/L	20	04/30/21 17:05	EPA 8270E	
2-Methylnaphthalene	ND	0.388	0.777	ug/L	20	04/30/21 17:05	EPA 8270E	
Naphthalene	ND	0.388	0.777	ug/L	20	04/30/21 17:05	EPA 8270E	
Phenanthrene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Pyrene	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Carbazole	ND	0.291	0.583	ug/L	20	04/30/21 17:05	EPA 8270E	
Dibenzofuran	ND	0.194	0.388	ug/L	20	04/30/21 17:05	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	3.88	7.77	ug/L	20	04/30/21 17:05	EPA 8270E	
Butyl benzyl phthalate	ND	3.88	7.77	ug/L	20	04/30/21 17:05	EPA 8270E	
Diethylphthalate	ND	3.88	7.77	ug/L	20	04/30/21 17:05	EPA 8270E	
Dimethylphthalate	ND	3.88	7.77	ug/L	20	04/30/21 17:05	EPA 8270E	
Di-n-butylphthalate	ND	3.88	7.77	ug/L	20	04/30/21 17:05	EPA 8270E	
Di-n-octyl phthalate	ND	3.88	7.77	ug/L	20	04/30/21 17:05	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	76 %	<i>Limits:</i>	44-120 %	20	04/30/21 17:05	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			76 %		44-120 %	20	04/30/21 17:05	EPA 8270E
<i>Phenol-d6 (Surr)</i>			22 %		10-133 %	20	04/30/21 17:05	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			33 %		50-134 %	20	04/30/21 17:05	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			37 %		19-120 %	20	04/30/21 17:05	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			119 %		43-140 %	20	04/30/21 17:05	EPA 8270E

DUP(042421) (A1D1005-03RE1)**Matrix: Water****Batch: 1041177****R-04**

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(042421) (A1D1005-03RE1)				Matrix: Water		Batch: 1041177		R-04
Acenaphthene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Acenaphthylene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Anthracene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Benz(a)anthracene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Benzo(a)pyrene	ND	0.583	1.17	ug/L	40	05/03/21 23:52	EPA 8270E	
Benzo(b)fluoranthene	ND	0.583	1.17	ug/L	40	05/03/21 23:52	EPA 8270E	
Benzo(k)fluoranthene	ND	0.583	1.17	ug/L	40	05/03/21 23:52	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Chrysene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Fluoranthene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Fluorene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
1-Methylnaphthalene	ND	0.777	1.55	ug/L	40	05/03/21 23:52	EPA 8270E	
2-Methylnaphthalene	ND	0.777	1.55	ug/L	40	05/03/21 23:52	EPA 8270E	
Naphthalene	ND	0.777	1.55	ug/L	40	05/03/21 23:52	EPA 8270E	
Phenanthrene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Pyrene	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Carbazole	ND	0.583	1.17	ug/L	40	05/03/21 23:52	EPA 8270E	
Dibenzofuran	ND	0.388	0.777	ug/L	40	05/03/21 23:52	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	7.77	15.5	ug/L	40	05/03/21 23:52	EPA 8270E	
Butyl benzyl phthalate	ND	7.77	15.5	ug/L	40	05/03/21 23:52	EPA 8270E	
Diethylphthalate	ND	7.77	15.5	ug/L	40	05/03/21 23:52	EPA 8270E	
Dimethylphthalate	ND	7.77	15.5	ug/L	40	05/03/21 23:52	EPA 8270E	
Di-n-butylphthalate	ND	7.77	15.5	ug/L	40	05/03/21 23:52	EPA 8270E	
Di-n-octyl phthalate	ND	7.77	15.5	ug/L	40	05/03/21 23:52	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	51 %	<i>Limits:</i>	44-120 %	40	05/03/21 23:52	EPA 8270E S-05
<i>2-Fluorobiphenyl (Surr)</i>			54 %		44-120 %	40	05/03/21 23:52	EPA 8270E S-05
<i>Phenol-d6 (Surr)</i>			26 %		10-133 %	40	05/03/21 23:52	EPA 8270E S-05
<i>p-Terphenyl-d14 (Surr)</i>			31 %		50-134 %	40	05/03/21 23:52	EPA 8270E S-05
<i>2-Fluorophenol (Surr)</i>			29 %		19-120 %	40	05/03/21 23:52	EPA 8270E S-05
<i>2,4,6-Tribromophenol (Surr)</i>			86 %		43-140 %	40	05/03/21 23:52	EPA 8270E S-05

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01) Matrix: Water								
Batch: 1050197								
Arsenic	0.517	0.500	1.00	ug/L	1	05/06/21 19:08	EPA 200.8	J
Chromium	1.85	0.500	1.00	ug/L	1	05/06/21 19:08	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	05/06/21 19:08	EPA 200.8	
Zinc	140	2.00	4.00	ug/L	1	05/06/21 19:08	EPA 200.8	
SW-2(042421) (A1D1005-02) Matrix: Water								
Batch: 1050197								
Arsenic	1.14	0.500	1.00	ug/L	1	05/06/21 19:12	EPA 200.8	
Cadmium	0.280	0.100	0.200	ug/L	1	05/06/21 19:12	EPA 200.8	
Chromium	2.64	0.500	1.00	ug/L	1	05/06/21 19:12	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	05/06/21 19:12	EPA 200.8	
Zinc	703	2.00	4.00	ug/L	1	05/06/21 19:12	EPA 200.8	
DUP(042421) (A1D1005-03) Matrix: Water								
Batch: 1050197								
Chromium	1.70	0.500	1.00	ug/L	1	05/06/21 19:17	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	05/06/21 19:17	EPA 200.8	
Zinc	135	2.00	4.00	ug/L	1	05/06/21 19:17	EPA 200.8	

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ANALYTICAL REPORT

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Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)				Matrix: Water				
Batch: 1050526								
Cadmium	0.0713	0.0250	0.0500	ug/L	1	05/19/21 16:27	EPA 200.8-LL	
DUP(042421) (A1D1005-03)				Matrix: Water				
Batch: 1050526								
Arsenic	0.461	0.0500	0.100	ug/L	1	05/19/21 16:34	EPA 200.8-LL	
Cadmium	0.0606	0.0250	0.0500	ug/L	1	05/19/21 16:34	EPA 200.8-LL	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Tigard, OR 97223

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GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****ANALYTICAL SAMPLE RESULTS****Solid and Moisture Determinations**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(042421) (A1D1005-01)		Matrix: Water						
Batch: 1040974								
Total Suspended Solids	13.0	5.00	5.00	mg/L	1	04/29/21 09:21	SM 2540 D	
SW-2(042421) (A1D1005-02)		Matrix: Water						
Batch: 1040974								
Total Suspended Solids	8.00	5.00	5.00	mg/L	1	04/29/21 09:21	SM 2540 D	
DUP(042421) (A1D1005-03)		Matrix: Water						
Batch: 1040974								
Total Suspended Solids	9.00	5.00	5.00	mg/L	1	04/29/21 09:21	SM 2540 D	

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041169 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (1041169-BLK1)			Prepared: 04/30/21 13:01		Analyzed: 05/01/21 03:27							
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	0.182	0.364	mg/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 88 %		Limits: 50-150 %		Dilution: 1x						
LCS (1041169-BS1)			Prepared: 04/30/21 13:01		Analyzed: 05/01/21 03:49							
NWTPH-Dx												
Diesel	0.960	0.100	0.200	mg/L	1	1.25	---	77	59-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
LCS Dup (1041169-BSD1)			Prepared: 04/30/21 13:01		Analyzed: 05/01/21 04:10							Q-19
NWTPH-Dx												
Diesel	0.994	0.100	0.200	mg/L	1	1.25	---	80	59-115%	3	30%	
Surr: o-Terphenyl (Surr)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Blank (1041086-BLK1)			Prepared: 04/29/21 08:00 Analyzed: 04/29/21 09:40									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		101 %		50-150 %		"						
LCS (1041086-BS2)			Prepared: 04/29/21 08:00 Analyzed: 04/29/21 09:11									
NWTPH-Gx (MS)												
Gasoline Range Organics	0.444	0.0500	0.100	mg/L	1	0.500	---	89	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		94 %		50-150 %		"						
Duplicate (1041086-DUP1)			Prepared: 04/29/21 09:00 Analyzed: 04/29/21 12:06									
QC Source Sample: Non-SDG (A1D1137-01)												
Gasoline Range Organics	1.02	0.0500	0.100	mg/L	1	---	0.752	---	---	30	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 111 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		98 %		50-150 %		"						
Duplicate (1041086-DUP2)			Prepared: 04/29/21 09:00 Analyzed: 04/29/21 21:48									
QC Source Sample: SW-2(042421) (A1D1005-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		100 %		50-150 %		"						

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1D1005 - 05 24 21 1104

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Blank (1041139-BLK1)			Prepared: 04/30/21 08:00 Analyzed: 04/30/21 10:06									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 100 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						
LCS (1041139-BS2)			Prepared: 04/30/21 08:00 Analyzed: 04/30/21 09:39									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.550	0.0500	0.100	mg/L	1	0.500	---	110	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 108 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"						
Duplicate (1041139-DUP1)			Prepared: 04/30/21 08:00 Analyzed: 04/30/21 12:49									
<u>QC Source Sample: Non-SDG (A1D1204-01)</u>												
Gasoline Range Organics	0.301	0.0500	0.100	mg/L	1	---	0.290	---	---	4	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 108 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Blank (1041086-BLK1)			Prepared: 04/29/21 08:00		Analyzed: 04/29/21 09:40							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	ESTa
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	EST
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Blank (1041086-BLK1)						Prepared: 04/29/21 08:00 Analyzed: 04/29/21 09:40						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director

Page 27 of 70



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Blank (1041086-BLK1)				Prepared: 04/29/21 08:00		Analyzed: 04/29/21 09:40						
Surr: Toluene-d8 (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		102 %		80-120 %		"						
LCS (1041086-BS1)				Prepared: 04/29/21 08:00		Analyzed: 04/29/21 08:41						
EPA 8260D												
Acetone	34.5	10.0	20.0	ug/L	1	40.0	---	86	80-120%	---	---	
Acrylonitrile	18.0	1.00	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
Benzene	19.4	0.100	0.200	ug/L	1	20.0	---	97	80-120%	---	---	
Bromobenzene	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Bromodichloromethane	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromoform	23.4	0.500	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
Bromomethane	13.8	5.00	5.00	ug/L	1	20.0	---	69	80-120%	---	---	Q-55
2-Butanone (MEK)	37.5	5.00	10.0	ug/L	1	40.0	---	94	80-120%	---	---	
n-Butylbenzene	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
sec-Butylbenzene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
tert-Butylbenzene	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Carbon disulfide	16.2	5.00	10.0	ug/L	1	20.0	---	81	80-120%	---	---	
Carbon tetrachloride	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Chlorobenzene	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	15.9	5.00	5.00	ug/L	1	20.0	---	79	80-120%	---	---	ESTa, Q-55
Chloroform	19.9	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloromethane	20.8	2.50	5.00	ug/L	1	20.0	---	104	80-120%	---	---	
2-Chlorotoluene	21.9	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
4-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromochloromethane	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.9	2.50	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.5	0.250	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Dibromomethane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	18.6	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	18.0	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	EST
1,1-Dichloroethane	17.7	0.200	0.400	ug/L	1	20.0	---	88	80-120%	---	---	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
LCS (1041086-BS1)			Prepared: 04/29/21 08:00		Analyzed: 04/29/21 08:41							
1,2-Dichloroethane (EDC)	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,1-Dichloroethene	18.6	0.200	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
cis-1,2-Dichloroethene	18.6	0.200	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	16.6	0.200	0.400	ug/L	1	20.0	---	83	80-120%	---	---	
1,2-Dichloropropane	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichloropropane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
2,2-Dichloropropane	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloropropene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,3-Dichloropropene	18.9	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Ethylbenzene	22.2	0.250	0.500	ug/L	1	20.0	---	111	80-120%	---	---	
Hexachlorobutadiene	20.6	2.50	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
2-Hexanone	33.5	5.00	10.0	ug/L	1	40.0	---	84	80-120%	---	---	
Isopropylbenzene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
4-Isopropyltoluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	19.9	5.00	10.0	ug/L	1	20.0	---	100	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	36.2	5.00	10.0	ug/L	1	40.0	---	91	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	18.1	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Naphthalene	16.1	2.00	4.00	ug/L	1	20.0	---	80	80-120%	---	---	
n-Propylbenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Styrene	20.5	1.00	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.0	0.200	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Tetrachloroethene (PCE)	21.0	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Toluene	18.7	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	20.0	1.00	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trichlorobenzene	18.1	1.00	2.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1,1-Trichloroethane	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,2-Trichloroethane	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Trichloroethene (TCE)	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Trichlorofluoromethane	20.5	1.00	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2,3-Trichloropropane	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,4-Trimethylbenzene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,3,5-Trimethylbenzene	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
LCS (1041086-BS1)			Prepared: 04/29/21 08:00		Analyzed: 04/29/21 08:41							
Vinyl chloride	16.4	0.200	0.400	ug/L	1	20.0	---	82	80-120%	---	---	
m,p-Xylene	41.4	0.500	1.00	ug/L	1	40.0	---	103	80-120%	---	---	
o-Xylene	18.9	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
Duplicate (1041086-DUP1)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 12:06							
QC Source Sample: Non-SDG (A1D1137-01)												
Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	0.200	0.100	0.200	ug/L	1	---	0.160	---	---	22	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	0.660	0.500	1.00	ug/L	1	---	0.550	---	---	18	30%	
sec-Butylbenzene	1.01	0.500	1.00	ug/L	1	---	0.890	---	---	13	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	ESTa
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Duplicate (1041086-DUP1)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 12:06							
QC Source Sample: Non-SDG (A1D1137-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	EST-05
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	10.9	0.250	0.500	ug/L	1	---	8.64	---	---	23	30%	J-05
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	1.62	0.500	1.00	ug/L	1	---	1.33	---	---	20	30%	
4-Isopropyltoluene	0.890	0.500	1.00	ug/L	1	---	0.720	---	---	21	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	8.34	2.00	4.00	ug/L	1	---	6.47	---	---	25	30%	
n-Propylbenzene	3.14	0.250	0.500	ug/L	1	---	2.15	---	---	37	30%	
Styrene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	Q-05
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B							Water					
Duplicate (1041086-DUP1)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 12:06							
QC Source Sample: Non-SDG (A1D1137-01)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	65.5	0.500	1.00	ug/L	1	---	49.3	---	---	28	30%	
1,3,5-Trimethylbenzene	1.00	0.500	1.00	ug/L	1	---	0.690	---	---	37	30%	Q-05
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	3.10	0.500	1.00	ug/L	1	---	2.21	---	---	34	30%	Q-05
o-Xylene	23.5	0.250	0.500	ug/L	1	---	17.5	---	---	29	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
Duplicate (1041086-DUP2)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 21:48		T-02					
QC Source Sample: SW-2(042421) (A1D1005-02)												
EPA 8260D												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	ESTa
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Duplicate (1041086-DUP2)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 21:48		T-02					
QC Source Sample: SW-2(042421) (A1D1005-02)												
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	EST
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	2.00	4.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Duplicate (1041086-DUP2)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 21:48		T-02					
QC Source Sample: SW-2(042421) (A1D1005-02)												
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Isobutyl alcohol	ND	250	250	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	0.750	1.50	ug/L	1	---	ND	---	---	---	30%	
trans-1,4-Dichloro-2-butene	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		106 %		80-120 %		"						

Matrix Spike (1041086-MS1)

Prepared: 04/29/21 09:00 Analyzed: 04/29/21 15:59

QC Source Sample: Non-SDG (A1D1137-04)**EPA 8260D**

Acetone	902	250	500	ug/L	25	1000	ND	90	39-160%	---	---	
Acrylonitrile	527	25.0	50.0	ug/L	25	500	54.8	94	63-135%	---	---	
Benzene	520	2.50	5.00	ug/L	25	500	4.00	103	79-120%	---	---	
Bromobenzene	498	6.25	12.5	ug/L	25	500	ND	100	80-120%	---	---	
Bromochloromethane	466	12.5	25.0	ug/L	25	500	ND	93	78-123%	---	---	
Bromodichloromethane	464	12.5	25.0	ug/L	25	500	ND	93	79-125%	---	---	
Bromoform	503	12.5	25.0	ug/L	25	500	ND	101	66-130%	---	---	
Bromomethane	422	125	125	ug/L	25	500	ND	84	53-141%	---	---	Q-54i

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Matrix Spike (1041086-MS1)			Prepared: 04/29/21 09:00		Analyzed: 04/29/21 15:59							
QC Source Sample: Non-SDG (A1D1137-04)												
2-Butanone (MEK)	998	125	250	ug/L	25	1000	ND	100	56-143%	---	---	
n-Butylbenzene	610	12.5	25.0	ug/L	25	500	16.8	119	75-128%	---	---	
sec-Butylbenzene	547	12.5	25.0	ug/L	25	500	30.8	103	77-126%	---	---	
tert-Butylbenzene	534	12.5	25.0	ug/L	25	500	ND	107	78-124%	---	---	
Carbon disulfide	398	125	250	ug/L	25	500	ND	80	64-133%	---	---	
Carbon tetrachloride	511	12.5	25.0	ug/L	25	500	ND	102	72-136%	---	---	
Chlorobenzene	479	6.25	12.5	ug/L	25	500	ND	96	80-120%	---	---	
Chloroethane	400	125	125	ug/L	25	500	ND	80	60-138%	---	---	ESTa
Chloroform	473	12.5	25.0	ug/L	25	500	ND	95	79-124%	---	---	
Chloromethane	466	62.5	125	ug/L	25	500	ND	93	50-139%	---	---	
2-Chlorotoluene	628	12.5	25.0	ug/L	25	500	ND	126	79-122%	---	---	Q-01
4-Chlorotoluene	502	12.5	25.0	ug/L	25	500	ND	100	78-122%	---	---	
Dibromochloromethane	490	12.5	25.0	ug/L	25	500	ND	98	74-126%	---	---	
1,2-Dibromo-3-chloropropane	548	62.5	125	ug/L	25	500	ND	110	62-128%	---	---	
1,2-Dibromoethane (EDB)	527	6.25	12.5	ug/L	25	500	ND	105	77-121%	---	---	
Dibromomethane	483	12.5	25.0	ug/L	25	500	ND	97	79-123%	---	---	
1,2-Dichlorobenzene	530	6.25	12.5	ug/L	25	500	ND	106	80-120%	---	---	
1,3-Dichlorobenzene	534	6.25	12.5	ug/L	25	500	ND	107	80-120%	---	---	
1,4-Dichlorobenzene	467	6.25	12.5	ug/L	25	500	ND	93	79-120%	---	---	
Dichlorodifluoromethane	472	12.5	25.0	ug/L	25	500	ND	94	32-152%	---	---	ESTb
1,1-Dichloroethane	439	5.00	10.0	ug/L	25	500	ND	88	77-125%	---	---	
1,2-Dichloroethane (EDC)	434	5.00	10.0	ug/L	25	500	ND	87	73-128%	---	---	
1,1-Dichloroethene	442	5.00	10.0	ug/L	25	500	ND	88	71-131%	---	---	
cis-1,2-Dichloroethene	477	5.00	10.0	ug/L	25	500	ND	95	78-123%	---	---	
trans-1,2-Dichloroethene	433	5.00	10.0	ug/L	25	500	ND	87	75-124%	---	---	
1,2-Dichloropropane	476	6.25	12.5	ug/L	25	500	ND	95	78-122%	---	---	
1,3-Dichloropropane	494	12.5	25.0	ug/L	25	500	ND	99	80-120%	---	---	
2,2-Dichloropropane	474	12.5	25.0	ug/L	25	500	ND	95	60-139%	---	---	
1,1-Dichloropropene	577	12.5	25.0	ug/L	25	500	ND	115	79-125%	---	---	
cis-1,3-Dichloropropene	408	12.5	25.0	ug/L	25	500	ND	82	75-124%	---	---	
trans-1,3-Dichloropropene	460	12.5	25.0	ug/L	25	500	ND	92	73-127%	---	---	
Ethylbenzene	1790	6.25	12.5	ug/L	25	500	1220	114	79-121%	---	---	
Hexachlorobutadiene	585	62.5	125	ug/L	25	500	ND	117	66-134%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041086 - EPA 5030B						Water						
Matrix Spike (1041086-MS1)			Prepared: 04/29/21 09:00 Analyzed: 04/29/21 15:59									
QC Source Sample: Non-SDG (A1D1137-04)												
2-Hexanone	840	125	250	ug/L	25	1000	ND	84	57-139%	---	---	
Isopropylbenzene	632	12.5	25.0	ug/L	25	500	93.2	108	72-131%	---	---	
4-Isopropyltoluene	598	12.5	25.0	ug/L	25	500	18.8	116	77-127%	---	---	
Methylene chloride	511	125	250	ug/L	25	500	ND	102	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	924	125	250	ug/L	25	1000	ND	92	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	456	12.5	25.0	ug/L	25	500	ND	91	71-124%	---	---	
Naphthalene	894	50.0	100	ug/L	25	500	342	110	61-128%	---	---	
n-Propylbenzene	1020	6.25	12.5	ug/L	25	500	416	121	76-126%	---	---	
Styrene	509	25.0	50.0	ug/L	25	500	ND	102	78-123%	---	---	
1,1,1,2-Tetrachloroethane	492	5.00	10.0	ug/L	25	500	ND	98	78-124%	---	---	
1,1,2,2-Tetrachloroethane	448	6.25	12.5	ug/L	25	500	ND	90	71-121%	---	---	
Tetrachloroethene (PCE)	528	5.00	10.0	ug/L	25	500	ND	106	74-129%	---	---	
Toluene	508	12.5	25.0	ug/L	25	500	42.5	93	80-121%	---	---	
1,2,3-Trichlorobenzene	543	25.0	50.0	ug/L	25	500	ND	109	69-129%	---	---	
1,2,4-Trichlorobenzene	601	25.0	50.0	ug/L	25	500	ND	120	69-130%	---	---	
1,1,1-Trichloroethane	487	5.00	10.0	ug/L	25	500	ND	97	74-131%	---	---	
1,1,2-Trichloroethane	494	6.25	12.5	ug/L	25	500	ND	99	80-120%	---	---	
Trichloroethene (TCE)	520	5.00	10.0	ug/L	25	500	ND	104	79-123%	---	---	
Trichlorofluoromethane	458	25.0	50.0	ug/L	25	500	ND	92	65-141%	---	---	
1,2,3-Trichloropropane	461	12.5	25.0	ug/L	25	500	ND	92	73-122%	---	---	
1,2,4-Trimethylbenzene	2870	12.5	25.0	ug/L	25	500	2310	112	76-124%	---	---	
1,3,5-Trimethylbenzene	1320	12.5	25.0	ug/L	25	500	760	111	75-124%	---	---	
Vinyl chloride	474	5.00	10.0	ug/L	25	500	ND	95	58-137%	---	---	
m,p-Xylene	5410	12.5	25.0	ug/L	25	1000	4580	84	80-121%	---	---	
o-Xylene	1200	6.25	12.5	ug/L	25	500	656	109	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		94 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Blank (1041139-BLK1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 10:06							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Blank (1041139-BLK1)						Prepared: 04/30/21 08:00 Analyzed: 04/30/21 10:06						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 112 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director

Page 38 of 70



ANALYTICAL REPORT

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Blank (1041139-BLK1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 10:06							
Surr: Toluene-d8 (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"						
LCS (1041139-BS1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 09:06							
EPA 8260D												
Acetone	40.9	10.0	20.0	ug/L	1	40.0	---	102	80-120%	---	---	
Acrylonitrile	22.9	1.00	2.00	ug/L	1	20.0	---	115	80-120%	---	---	
Benzene	21.6	0.100	0.200	ug/L	1	20.0	---	108	80-120%	---	---	
Bromobenzene	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromodichloromethane	26.2	0.500	1.00	ug/L	1	20.0	---	131	80-120%	---	---	Q-56
Bromoform	20.2	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromomethane	29.6	5.00	5.00	ug/L	1	20.0	---	148	80-120%	---	---	E-05, Q-56
2-Butanone (MEK)	46.4	5.00	10.0	ug/L	1	40.0	---	116	80-120%	---	---	
n-Butylbenzene	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
sec-Butylbenzene	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
tert-Butylbenzene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Carbon disulfide	22.4	5.00	10.0	ug/L	1	20.0	---	112	80-120%	---	---	E-05
Carbon tetrachloride	23.8	0.500	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
Chlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	37.6	5.00	5.00	ug/L	1	20.0	---	188	80-120%	---	---	E-05, Q-56
Chloroform	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Chloromethane	21.4	2.50	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
2-Chlorotoluene	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
4-Chlorotoluene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromochloromethane	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	21.3	2.50	5.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	22.9	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2-Dichlorobenzene	21.6	0.250	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
1,3-Dichlorobenzene	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	20.5	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethane	21.1	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
LCS (1041139-BS1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 09:06							
1,2-Dichloroethane (EDC)	21.4	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloroethene	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
cis-1,2-Dichloroethene	20.3	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloropropane	23.0	0.250	0.500	ug/L	1	20.0	---	115	80-120%	---	---	
1,3-Dichloropropane	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
2,2-Dichloropropane	25.9	0.500	1.00	ug/L	1	20.0	---	130	80-120%	---	---	Q-56
1,1-Dichloropropene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,3-Dichloropropene	18.0	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
trans-1,3-Dichloropropene	20.7	1.00	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
Ethylbenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Hexachlorobutadiene	21.9	2.50	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
2-Hexanone	40.4	5.00	10.0	ug/L	1	40.0	---	101	80-120%	---	---	
Isopropylbenzene	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
4-Isopropyltoluene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Methylene chloride	22.1	5.00	10.0	ug/L	1	20.0	---	111	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	41.7	5.00	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	22.1	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Naphthalene	18.8	1.00	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
n-Propylbenzene	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Styrene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.8	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.7	0.250	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	19.1	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Toluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	21.4	1.00	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	19.9	1.00	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1-Trichloroethane	21.8	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2-Trichloroethane	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Trichloroethene (TCE)	20.9	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Trichlorofluoromethane	30.2	1.00	2.00	ug/L	1	20.0	---	151	80-120%	---	---	Q-56
1,2,3-Trichloropropane	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,4-Trimethylbenzene	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,3,5-Trimethylbenzene	20.9	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
LCS (1041139-BS1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 09:06							
Vinyl chloride	21.1	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
m,p-Xylene	42.0	0.500	1.00	ug/L	1	40.0	---	105	80-120%	---	---	
o-Xylene	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						
Duplicate (1041139-DUP1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 12:49							
QC Source Sample: Non-SDG (A1D1204-01)												
Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	0.540	---	---	***	30%	Q-05
sec-Butylbenzene	0.760	0.500	1.00	ug/L	1	---	0.700	---	---	8	30%	J
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Duplicate (1041139-DUP1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 12:49							
QC Source Sample: Non-SDG (A1D1204-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	1.40	0.250	0.500	ug/L	1	---	1.39	---	---	0.7	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	0.850	0.500	1.00	ug/L	1	---	0.760	---	---	11	30%	
4-Isopropyltoluene	0.580	0.500	1.00	ug/L	1	---	0.570	---	---	2	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	1.58	1.00	2.00	ug/L	1	---	1.52	---	---	4	30%	
n-Propylbenzene	1.28	0.250	0.500	ug/L	1	---	1.30	---	---	2	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B							Water					
Duplicate (1041139-DUP1)			Prepared: 04/30/21 08:00 Analyzed: 04/30/21 12:49									
QC Source Sample: Non-SDG (A1D1204-01)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	8.94	0.500	1.00	ug/L	1	---	8.72	---	---	2	30%	
1,3,5-Trimethylbenzene	4.29	0.500	1.00	ug/L	1	---	4.49	---	---	5	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	6.25	0.500	1.00	ug/L	1	---	6.00	---	---	4	30%	
o-Xylene	3.37	0.250	0.500	ug/L	1	---	3.37	---	---	0	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 113 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

Matrix Spike (1041139-MS1)

Prepared: 04/30/21 08:00 Analyzed: 04/30/21 11:27

QC Source Sample: Non-SDG (A1D1171-01)**EPA 8260D**

Acetone	136	10.0	20.0	ug/L	1	40.0	101	88	39-160%	---	---	
Acrylonitrile	24.0	1.00	2.00	ug/L	1	20.0	ND	120	63-135%	---	---	
Benzene	23.0	0.100	0.200	ug/L	1	20.0	ND	115	79-120%	---	---	
Bromobenzene	19.1	0.250	0.500	ug/L	1	20.0	ND	95	80-120%	---	---	
Bromochloromethane	24.0	0.500	1.00	ug/L	1	20.0	ND	120	78-123%	---	---	
Bromodichloromethane	28.2	0.500	1.00	ug/L	1	20.0	ND	141	79-125%	---	---	Q-54a
Bromoform	20.3	1.00	2.00	ug/L	1	20.0	ND	102	66-130%	---	---	
Bromomethane	32.1	5.00	5.00	ug/L	1	20.0	ND	160	53-141%	---	---	E-05, Q-54d
2-Butanone (MEK)	50.0	5.00	10.0	ug/L	1	40.0	ND	125	56-143%	---	---	
n-Butylbenzene	24.1	0.500	1.00	ug/L	1	20.0	ND	120	75-128%	---	---	
sec-Butylbenzene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	77-126%	---	---	
tert-Butylbenzene	19.6	0.500	1.00	ug/L	1	20.0	ND	98	78-124%	---	---	
Carbon disulfide	24.0	5.00	10.0	ug/L	1	20.0	ND	120	64-133%	---	---	E-05
Carbon tetrachloride	25.6	0.500	1.00	ug/L	1	20.0	ND	128	72-136%	---	---	
Chlorobenzene	20.7	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Chloroethane	40.4	5.00	5.00	ug/L	1	20.0	ND	202	60-138%	---	---	E-05, Q-54g
Chloroform	23.2	0.500	1.00	ug/L	1	20.0	ND	116	79-124%	---	---	
Chloromethane	21.1	2.50	5.00	ug/L	1	20.0	ND	105	50-139%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Matrix Spike (1041139-MS1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 11:27							
QC Source Sample: Non-SDG (A1D1171-01)												
2-Chlorotoluene	20.4	0.500	1.00	ug/L	1	20.0	ND	102	79-122%	---	---	
4-Chlorotoluene	20.0	0.500	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	19.8	0.500	1.00	ug/L	1	20.0	ND	99	74-126%	---	---	
1,2-Dibromo-3-chloropropane	21.9	2.50	5.00	ug/L	1	20.0	ND	110	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.7	0.250	0.500	ug/L	1	20.0	ND	103	77-121%	---	---	
Dibromomethane	23.8	0.500	1.00	ug/L	1	20.0	ND	119	79-123%	---	---	
1,2-Dichlorobenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,3-Dichlorobenzene	21.4	0.250	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
1,4-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	ND	101	79-120%	---	---	
Dichlorodifluoromethane	22.4	0.500	1.00	ug/L	1	20.0	ND	112	32-152%	---	---	
1,1-Dichloroethane	22.2	0.200	0.400	ug/L	1	20.0	ND	111	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.5	0.200	0.400	ug/L	1	20.0	ND	112	73-128%	---	---	
1,1-Dichloroethene	21.0	0.200	0.400	ug/L	1	20.0	ND	105	71-131%	---	---	
cis-1,2-Dichloroethene	21.7	0.200	0.400	ug/L	1	20.0	ND	108	78-123%	---	---	
trans-1,2-Dichloroethene	21.6	0.200	0.400	ug/L	1	20.0	ND	108	75-124%	---	---	
1,2-Dichloropropane	24.5	0.250	0.500	ug/L	1	20.0	ND	123	78-122%	---	---	Q-01
1,3-Dichloropropane	21.8	0.500	1.00	ug/L	1	20.0	ND	109	80-120%	---	---	
2,2-Dichloropropane	26.0	0.500	1.00	ug/L	1	20.0	ND	130	60-139%	---	---	Q-54
1,1-Dichloropropene	22.7	0.500	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
cis-1,3-Dichloropropene	18.5	0.500	1.00	ug/L	1	20.0	ND	92	75-124%	---	---	
trans-1,3-Dichloropropene	21.5	1.00	2.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Ethylbenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	79-121%	---	---	
Hexachlorobutadiene	22.4	2.50	5.00	ug/L	1	20.0	ND	112	66-134%	---	---	
2-Hexanone	43.7	5.00	10.0	ug/L	1	40.0	ND	109	57-139%	---	---	
Isopropylbenzene	22.5	0.500	1.00	ug/L	1	20.0	ND	112	72-131%	---	---	
4-Isopropyltoluene	21.9	0.500	1.00	ug/L	1	20.0	ND	109	77-127%	---	---	
Methylene chloride	21.5	5.00	10.0	ug/L	1	20.0	ND	108	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	43.2	5.00	10.0	ug/L	1	40.0	ND	108	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	23.2	0.500	1.00	ug/L	1	20.0	ND	116	71-124%	---	---	
Naphthalene	19.7	1.00	2.00	ug/L	1	20.0	ND	98	61-128%	---	---	
n-Propylbenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	76-126%	---	---	
Styrene	19.9	0.500	1.00	ug/L	1	20.0	ND	100	78-123%	---	---	
1,1,1,2-Tetrachloroethane	20.8	0.200	0.400	ug/L	1	20.0	ND	104	78-124%	---	---	

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Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041139 - EPA 5030B						Water						
Matrix Spike (1041139-MS1)			Prepared: 04/30/21 08:00		Analyzed: 04/30/21 11:27							
QC Source Sample: Non-SDG (A1D1171-01)												
1,1,2,2-Tetrachloroethane	22.3	0.250	0.500	ug/L	1	20.0	ND	112	71-121%	---	---	Q-54f
Tetrachloroethene (PCE)	20.5	0.200	0.400	ug/L	1	20.0	ND	103	74-129%	---	---	
Toluene	20.4	0.500	1.00	ug/L	1	20.0	ND	102	80-121%	---	---	
1,2,3-Trichlorobenzene	22.3	1.00	2.00	ug/L	1	20.0	ND	112	69-129%	---	---	
1,2,4-Trichlorobenzene	20.7	1.00	2.00	ug/L	1	20.0	ND	103	69-130%	---	---	
1,1,1-Trichloroethane	23.2	0.200	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
1,1,2-Trichloroethane	22.1	0.250	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
Trichloroethene (TCE)	22.0	0.200	0.400	ug/L	1	20.0	ND	110	79-123%	---	---	
Trichlorofluoromethane	32.8	1.00	2.00	ug/L	1	20.0	ND	164	65-141%	---	---	
1,2,3-Trichloropropane	21.7	0.500	1.00	ug/L	1	20.0	ND	108	73-122%	---	---	
1,2,4-Trimethylbenzene	22.5	0.500	1.00	ug/L	1	20.0	ND	112	76-124%	---	---	
1,3,5-Trimethylbenzene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	75-124%	---	---	
Vinyl chloride	22.6	0.200	0.400	ug/L	1	20.0	ND	113	58-137%	---	---	
m,p-Xylene	44.2	0.500	1.00	ug/L	1	40.0	ND	111	80-121%	---	---	
o-Xylene	21.7	0.250	0.500	ug/L	1	20.0	ND	109	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		91 %		80-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041149 - EPA 5030B						Water						
Blank (1041149-BLK1)			Prepared: 04/30/21 08:30 Analyzed: 04/30/21 12:02									
EPA 8260D SIM												
Benzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		84 %		80-120 %		"						

LCS (1041149-BS1)

Prepared: 04/30/21 08:30 Analyzed: 04/30/21 10:46

EPA 8260D SIM

Benzene	0.223	0.0500	0.100	ug/L	1	0.200	---	111	80-120%	---	---
Toluene	0.191	0.0500	0.100	ug/L	1	0.200	---	95	80-120%	---	---

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041149 - EPA 5030B						Water						
LCS (1041149-BS1)		Prepared: 04/30/21 08:30				Analyzed: 04/30/21 10:46						
Ethylbenzene	0.196	0.0500	0.100	ug/L	1	0.200	---	98	80-120%	---	---	
m,p-Xylene	0.379	0.100	0.200	ug/L	1	0.400	---	95	80-120%	---	---	
o-Xylene	0.183	0.0500	0.100	ug/L	1	0.200	---	91	80-120%	---	---	
1,2,4-Trimethylbenzene	0.189	0.0500	0.100	ug/L	1	0.200	---	95	80-120%	---	---	
1,3,5-Trimethylbenzene	0.193	0.0500	0.100	ug/L	1	0.200	---	97	80-120%	---	---	
Chloroform	0.235	0.0500	0.100	ug/L	1	0.200	---	118	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.274	0.100	0.200	ug/L	1	0.200	---	137	80-120%	---	---	Q-56
1,2-Dibromoethane (EDB)	0.231	0.0100	0.0200	ug/L	1	0.200	---	116	80-120%	---	---	
1,1-Dichloroethane	0.239	0.0100	0.0200	ug/L	1	0.200	---	119	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.260	0.0100	0.0200	ug/L	1	0.200	---	130	80-120%	---	---	Q-56
1,1-Dichloroethene	0.192	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
cis-1,2-Dichloroethene	0.217	0.0100	0.0200	ug/L	1	0.200	---	109	80-120%	---	---	
trans-1,2-Dichloroethene	0.216	0.0100	0.0200	ug/L	1	0.200	---	108	80-120%	---	---	
1,2-Dichloropropane	0.258	0.0100	0.0200	ug/L	1	0.200	---	129	80-120%	---	---	Q-56
cis-1,3-Dichloropropene	0.216	0.0100	0.0200	ug/L	1	0.200	---	108	80-120%	---	---	
trans-1,3-Dichloropropene	0.237	0.0100	0.0200	ug/L	1	0.200	---	119	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	0.223	0.0100	0.0200	ug/L	1	0.200	---	112	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.299	0.0100	0.0200	ug/L	1	0.200	---	150	80-120%	---	---	Q-56
Tetrachloroethene (PCE)	0.224	0.0100	0.0200	ug/L	1	0.200	---	112	80-120%	---	---	
1,1,2-Trichloroethane	0.232	0.0100	0.0200	ug/L	1	0.200	---	116	80-120%	---	---	
Trichloroethene (TCE)	0.226	0.0100	0.0200	ug/L	1	0.200	---	113	80-120%	---	---	
1,2,3-Trichloropropane	0.268	0.0500	0.100	ug/L	1	0.200	---	134	80-120%	---	---	Q-56
Vinyl chloride	0.224	0.0100	0.0200	ug/L	1	0.200	---	112	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		83 %		80-120 %		"						

Duplicate (1041149-DUP1)

Prepared: 04/30/21 11:31 Analyzed: 04/30/21 15:09

QC Source Sample: DUP(042421) (A1D1005-03)

Benzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%
Toluene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%
Ethylbenzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%
m,p-Xylene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
o-Xylene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041149 - EPA 5030B						Water						
Duplicate (1041149-DUP1)			Prepared: 04/30/21 11:31 Analyzed: 04/30/21 15:09									
QC Source Sample: DUP(042421) (A1D1005-03)												
1,2,4-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery:		103 %	Limits:		80-120 %	Dilution:		1x		
Toluene-d8 (Surr)				95 %			80-120 %			"		
4-Bromofluorobenzene (Surr)				84 %			80-120 %			"		

Matrix Spike (1041149-MS1)

Prepared: 04/30/21 11:31 Analyzed: 04/30/21 15:36

QC Source Sample: DUP(042421) (A1D1005-03)

Benzene	0.257	0.0500	0.100	ug/L	1	0.200	ND	129	79-120%	---	---	Q-01
Toluene	0.206	0.0500	0.100	ug/L	1	0.200	ND	103	80-121%	---	---	
Ethylbenzene	0.192	0.0500	0.100	ug/L	1	0.200	ND	96	79-121%	---	---	
m,p-Xylene	0.412	0.100	0.200	ug/L	1	0.400	ND	103	80-121%	---	---	
o-Xylene	0.171	0.0500	0.100	ug/L	1	0.200	ND	86	78-122%	---	---	
1,2,4-Trimethylbenzene	0.176	0.0500	0.100	ug/L	1	0.200	ND	88	76-124%	---	---	
1,3,5-Trimethylbenzene	0.180	0.0500	0.100	ug/L	1	0.200	ND	90	75-124%	---	---	

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ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041149 - EPA 5030B							Water					
Matrix Spike (1041149-MS1)			Prepared: 04/30/21 11:31			Analyzed: 04/30/21 15:36						
QC Source Sample: DUP(042421) (A1D1005-03)												
Chloroform	0.266	0.0500	0.100	ug/L	1	0.200	ND	133	79-124%	---	---	Q-01
1,2-Dibromo-3-chloropropane	0.199	0.100	0.200	ug/L	1	0.200	ND	99	62-128%	---	---	J, Q-54c
1,2-Dibromoethane (EDB)	0.218	0.0100	0.0200	ug/L	1	0.200	ND	109	77-121%	---	---	
1,1-Dichloroethane	0.279	0.0100	0.0200	ug/L	1	0.200	ND	139	77-125%	---	---	Q-01
1,2-Dichloroethane (EDC)	0.289	0.0100	0.0200	ug/L	1	0.200	ND	145	73-128%	---	---	Q-54
1,1-Dichloroethene	0.241	0.0100	0.0200	ug/L	1	0.200	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	0.246	0.0100	0.0200	ug/L	1	0.200	ND	123	78-123%	---	---	
trans-1,2-Dichloroethene	0.265	0.0100	0.0200	ug/L	1	0.200	ND	132	75-124%	---	---	Q-01
1,2-Dichloropropane	0.282	0.0100	0.0200	ug/L	1	0.200	ND	141	78-122%	---	---	Q-54h
cis-1,3-Dichloropropene	0.211	0.0100	0.0200	ug/L	1	0.200	ND	105	75-124%	---	---	
trans-1,3-Dichloropropene	0.214	0.0100	0.0200	ug/L	1	0.200	ND	107	73-127%	---	---	
Methyl tert-butyl ether (MTBE)	0.247	0.0100	0.0200	ug/L	1	0.200	ND	124	71-124%	---	---	
1,1,2,2-Tetrachloroethane	0.221	0.0100	0.0200	ug/L	1	0.200	ND	111	71-121%	---	---	Q-54e
Tetrachloroethene (PCE)	0.228	0.0100	0.0200	ug/L	1	0.200	ND	114	74-129%	---	---	
1,1,2-Trichloroethane	0.220	0.0100	0.0200	ug/L	1	0.200	ND	110	80-120%	---	---	
Trichloroethene (TCE)	0.239	0.0100	0.0200	ug/L	1	0.200	ND	120	79-123%	---	---	
1,2,3-Trichloropropane	0.234	0.0500	0.100	ug/L	1	0.200	ND	117	73-122%	---	---	Q-54b
Vinyl chloride	0.334	0.0100	0.0200	ug/L	1	0.200	ND	167	58-137%	---	---	Q-01
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		84 %		80-120 %		"						

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ANALYTICAL REPORT

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050125 - EPA 3510C (Neutral pH)						Water						
Blank (1050125-BLK1)			Prepared: 05/05/21 10:05			Analyzed: 05/05/21 19:12			C-07			
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 76 %		Limits: 40-135 %		Dilution: 1x						
LCS (1050125-BS1)			Prepared: 05/05/21 10:05			Analyzed: 05/05/21 19:29			C-07			
EPA 8082A												
Aroclor 1016	0.701	0.0100	0.0200	ug/L	1	1.25	---	56	46-129%	---	---	
Aroclor 1260	0.916	0.0100	0.0200	ug/L	1	1.25	---	73	45-134%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 81 %		Limits: 40-135 %		Dilution: 1x						
LCS Dup (1050125-BSD1)			Prepared: 05/05/21 10:05			Analyzed: 05/05/21 19:47			C-07, Q-19			
EPA 8082A												
Aroclor 1016	0.592	0.0100	0.0200	ug/L	1	1.25	---	47	46-129%	17	30%	
Aroclor 1260	0.800	0.0100	0.0200	ug/L	1	1.25	---	64	45-134%	14	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 69 %		Limits: 40-135 %		Dilution: 1x						

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ORELAP ID: OR100062**GeoDesign, Inc.**9450 SW Commerce Circle
Wilsonville, OR 97070Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041137 - EPA 3510C (Acid Extraction)						Water						
Blank (1041137-BLK2)			Prepared: 04/30/21 07:23		Analyzed: 04/30/21 12:14							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 69 %		Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		71 %		44-120 %		"						
Phenol-d6 (Surr)		27 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		79 %		50-134 %		"						
2-Fluorophenol (Surr)		43 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		89 %		43-140 %		"						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041137 - EPA 3510C (Acid Extraction)						Water						
LCS (1041137-BS2)			Prepared: 04/30/21 07:23		Analyzed: 04/30/21 12:50							
EPA 8270E												
Acenaphthene	3.25	0.0400	0.0800	ug/L	4	4.00	---	81	47-122%	---	---	
Acenaphthylene	3.38	0.0400	0.0800	ug/L	4	4.00	---	85	41-130%	---	---	
Anthracene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	57-123%	---	---	
Benz(a)anthracene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	58-125%	---	---	
Benzo(a)pyrene	3.26	0.0600	0.120	ug/L	4	4.00	---	81	54-128%	---	---	
Benzo(b)fluoranthene	3.49	0.0600	0.120	ug/L	4	4.00	---	87	53-131%	---	---	
Benzo(k)fluoranthene	3.44	0.0600	0.120	ug/L	4	4.00	---	86	57-129%	---	---	
Benzo(g,h,i)perylene	3.48	0.0400	0.0800	ug/L	4	4.00	---	87	50-134%	---	---	
Chrysene	3.38	0.0400	0.0800	ug/L	4	4.00	---	85	59-123%	---	---	
Dibenz(a,h)anthracene	3.45	0.0400	0.0800	ug/L	4	4.00	---	86	51-134%	---	---	
Fluoranthene	3.48	0.0400	0.0800	ug/L	4	4.00	---	87	57-128%	---	---	
Fluorene	3.25	0.0400	0.0800	ug/L	4	4.00	---	81	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.39	0.0400	0.0800	ug/L	4	4.00	---	85	52-134%	---	---	
1-Methylnaphthalene	3.19	0.0800	0.160	ug/L	4	4.00	---	80	41-120%	---	---	
2-Methylnaphthalene	3.15	0.0800	0.160	ug/L	4	4.00	---	79	40-121%	---	---	
Naphthalene	2.96	0.0800	0.160	ug/L	4	4.00	---	74	40-121%	---	---	
Phenanthrene	3.27	0.0400	0.0800	ug/L	4	4.00	---	82	59-120%	---	---	
Pyrene	3.40	0.0400	0.0800	ug/L	4	4.00	---	85	57-126%	---	---	
Carbazole	3.62	0.0600	0.120	ug/L	4	4.00	---	90	60-122%	---	---	
Dibenzofuran	3.09	0.0400	0.0800	ug/L	4	4.00	---	77	53-120%	---	---	
Bis(2-ethylhexyl)phthalate	3.37	0.800	1.60	ug/L	4	4.00	---	84	55-135%	---	---	
Butyl benzyl phthalate	3.40	0.800	1.60	ug/L	4	4.00	---	85	53-134%	---	---	
Diethylphthalate	3.37	0.800	1.60	ug/L	4	4.00	---	84	56-125%	---	---	
Dimethylphthalate	3.34	0.800	1.60	ug/L	4	4.00	---	84	45-127%	---	---	
Di-n-butylphthalate	3.50	0.800	1.60	ug/L	4	4.00	---	88	59-127%	---	---	
Di-n-octyl phthalate	3.27	0.800	1.60	ug/L	4	4.00	---	82	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 72 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		79 %		44-120 %		"						
Phenol-d6 (Surr)		24 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		80 %		50-134 %		"						
2-Fluorophenol (Surr)		37 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		92 %		43-140 %		"						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041137 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (1041137-BSD2)			Prepared: 04/30/21 07:23		Analyzed: 04/30/21 13:25		Q-19					
EPA 8270E												
Acenaphthene	3.32	0.0400	0.0800	ug/L	4	4.00	---	83	47-122%	2	30%	
Acenaphthylene	3.45	0.0400	0.0800	ug/L	4	4.00	---	86	41-130%	2	30%	
Anthracene	3.53	0.0400	0.0800	ug/L	4	4.00	---	88	57-123%	3	30%	
Benz(a)anthracene	3.64	0.0400	0.0800	ug/L	4	4.00	---	91	58-125%	6	30%	
Benzo(a)pyrene	3.33	0.0600	0.120	ug/L	4	4.00	---	83	54-128%	2	30%	
Benzo(b)fluoranthene	3.61	0.0600	0.120	ug/L	4	4.00	---	90	53-131%	3	30%	
Benzo(k)fluoranthene	3.58	0.0600	0.120	ug/L	4	4.00	---	90	57-129%	4	30%	
Benzo(g,h,i)perylene	3.63	0.0400	0.0800	ug/L	4	4.00	---	91	50-134%	4	30%	
Chrysene	3.48	0.0400	0.0800	ug/L	4	4.00	---	87	59-123%	3	30%	
Dibenz(a,h)anthracene	3.55	0.0400	0.0800	ug/L	4	4.00	---	89	51-134%	3	30%	
Fluoranthene	3.63	0.0400	0.0800	ug/L	4	4.00	---	91	57-128%	4	30%	
Fluorene	3.36	0.0400	0.0800	ug/L	4	4.00	---	84	52-124%	3	30%	
Indeno(1,2,3-cd)pyrene	3.49	0.0400	0.0800	ug/L	4	4.00	---	87	52-134%	3	30%	
1-Methylnaphthalene	3.11	0.0800	0.160	ug/L	4	4.00	---	78	41-120%	3	30%	
2-Methylnaphthalene	3.17	0.0800	0.160	ug/L	4	4.00	---	79	40-121%	0.5	30%	
Naphthalene	2.94	0.0800	0.160	ug/L	4	4.00	---	73	40-121%	0.7	30%	
Phenanthrene	3.36	0.0400	0.0800	ug/L	4	4.00	---	84	59-120%	3	30%	
Pyrene	3.55	0.0400	0.0800	ug/L	4	4.00	---	89	57-126%	4	30%	
Carbazole	3.78	0.0600	0.120	ug/L	4	4.00	---	95	60-122%	4	30%	
Dibenzofuran	3.20	0.0400	0.0800	ug/L	4	4.00	---	80	53-120%	3	30%	
Bis(2-ethylhexyl)phthalate	3.54	0.800	1.60	ug/L	4	4.00	---	89	55-135%	5	30%	
Butyl benzyl phthalate	3.53	0.800	1.60	ug/L	4	4.00	---	88	53-134%	4	30%	
Diethylphthalate	3.47	0.800	1.60	ug/L	4	4.00	---	87	56-125%	3	30%	
Dimethylphthalate	3.44	0.800	1.60	ug/L	4	4.00	---	86	45-127%	3	30%	
Di-n-butylphthalate	3.60	0.800	1.60	ug/L	4	4.00	---	90	59-127%	3	30%	
Di-n-octyl phthalate	3.32	0.800	1.60	ug/L	4	4.00	---	83	51-140%	1	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 68 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		81 %		44-120 %		"						
Phenol-d6 (Surr)		23 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		84 %		50-134 %		"						
2-Fluorophenol (Surr)		38 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		93 %		43-140 %		"						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041177 - EPA 3510C (Acid Extraction)						Water						
Blank (1041177-BLK1)			Prepared: 04/30/21 14:40 Analyzed: 05/03/21 22:06									
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 76 %		Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		65 %		44-120 %		"						
Phenol-d6 (Surr)		27 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		72 %		50-134 %		"						
2-Fluorophenol (Surr)		38 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		87 %		43-140 %		"						

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Philip Nerenberg, Lab Director

Page 54 of 70



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041177 - EPA 3510C (Acid Extraction)						Water						
LCS (1041177-BS1)			Prepared: 04/30/21 14:40 Analyzed: 05/03/21 22:41									
EPA 8270E												
Acenaphthene	3.00	0.0400	0.0800	ug/L	4	4.00	---	75	47-122%	---	---	
Acenaphthylene	3.10	0.0400	0.0800	ug/L	4	4.00	---	77	41-130%	---	---	
Anthracene	3.18	0.0400	0.0800	ug/L	4	4.00	---	80	57-123%	---	---	
Benz(a)anthracene	3.28	0.0400	0.0800	ug/L	4	4.00	---	82	58-125%	---	---	
Benzo(a)pyrene	3.03	0.0600	0.120	ug/L	4	4.00	---	76	54-128%	---	---	
Benzo(b)fluoranthene	3.32	0.0600	0.120	ug/L	4	4.00	---	83	53-131%	---	---	
Benzo(k)fluoranthene	3.33	0.0600	0.120	ug/L	4	4.00	---	83	57-129%	---	---	
Benzo(g,h,i)perylene	3.19	0.0400	0.0800	ug/L	4	4.00	---	80	50-134%	---	---	
Chrysene	3.17	0.0400	0.0800	ug/L	4	4.00	---	79	59-123%	---	---	
Dibenz(a,h)anthracene	3.31	0.0400	0.0800	ug/L	4	4.00	---	83	51-134%	---	---	
Fluoranthene	3.28	0.0400	0.0800	ug/L	4	4.00	---	82	57-128%	---	---	
Fluorene	3.09	0.0400	0.0800	ug/L	4	4.00	---	77	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.19	0.0400	0.0800	ug/L	4	4.00	---	80	52-134%	---	---	
1-Methylnaphthalene	3.03	0.0800	0.160	ug/L	4	4.00	---	76	41-120%	---	---	
2-Methylnaphthalene	2.96	0.0800	0.160	ug/L	4	4.00	---	74	40-121%	---	---	
Naphthalene	2.69	0.0800	0.160	ug/L	4	4.00	---	67	40-121%	---	---	
Phenanthrene	3.04	0.0400	0.0800	ug/L	4	4.00	---	76	59-120%	---	---	
Pyrene	3.29	0.0400	0.0800	ug/L	4	4.00	---	82	57-126%	---	---	
Carbazole	3.36	0.0600	0.120	ug/L	4	4.00	---	84	60-122%	---	---	
Dibenzofuran	2.94	0.0400	0.0800	ug/L	4	4.00	---	74	53-120%	---	---	
Bis(2-ethylhexyl)phthalate	3.32	0.800	1.60	ug/L	4	4.00	---	83	55-135%	---	---	
Butyl benzyl phthalate	3.31	0.800	1.60	ug/L	4	4.00	---	83	53-134%	---	---	
Diethylphthalate	3.25	0.800	1.60	ug/L	4	4.00	---	81	56-125%	---	---	
Dimethylphthalate	3.20	0.800	1.60	ug/L	4	4.00	---	80	45-127%	---	---	
Di-n-butylphthalate	3.42	0.800	1.60	ug/L	4	4.00	---	85	59-127%	---	---	
Di-n-octyl phthalate	3.38	0.800	1.60	ug/L	4	4.00	---	85	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 82 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		79 %		44-120 %		"						
Phenol-d6 (Surr)		31 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		82 %		50-134 %		"						
2-Fluorophenol (Surr)		42 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		94 %		43-140 %		"						

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ANALYTICAL REPORT

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Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1041177 - EPA 3510C (Acid Extraction)							Water					
LCS Dup (1041177-BSD1)			Prepared: 04/30/21 14:40		Analyzed: 05/03/21 23:17		Q-19					
EPA 8270E												
Acenaphthene	3.12	0.0400	0.0800	ug/L	4	4.00	---	78	47-122%	4	30%	
Acenaphthylene	3.16	0.0400	0.0800	ug/L	4	4.00	---	79	41-130%	2	30%	
Anthracene	3.24	0.0400	0.0800	ug/L	4	4.00	---	81	57-123%	2	30%	
Benz(a)anthracene	3.32	0.0400	0.0800	ug/L	4	4.00	---	83	58-125%	1	30%	
Benzo(a)pyrene	3.13	0.0600	0.120	ug/L	4	4.00	---	78	54-128%	3	30%	
Benzo(b)fluoranthene	3.35	0.0600	0.120	ug/L	4	4.00	---	84	53-131%	1	30%	
Benzo(k)fluoranthene	3.40	0.0600	0.120	ug/L	4	4.00	---	85	57-129%	2	30%	
Benzo(g,h,i)perylene	3.12	0.0400	0.0800	ug/L	4	4.00	---	78	50-134%	2	30%	
Chrysene	3.23	0.0400	0.0800	ug/L	4	4.00	---	81	59-123%	2	30%	
Dibenz(a,h)anthracene	3.32	0.0400	0.0800	ug/L	4	4.00	---	83	51-134%	0.2	30%	
Fluoranthene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	57-128%	5	30%	
Fluorene	3.17	0.0400	0.0800	ug/L	4	4.00	---	79	52-124%	3	30%	
Indeno(1,2,3-cd)pyrene	3.19	0.0400	0.0800	ug/L	4	4.00	---	80	52-134%	0.05	30%	
1-Methylnaphthalene	3.20	0.0800	0.160	ug/L	4	4.00	---	80	41-120%	6	30%	
2-Methylnaphthalene	3.21	0.0800	0.160	ug/L	4	4.00	---	80	40-121%	8	30%	
Naphthalene	2.84	0.0800	0.160	ug/L	4	4.00	---	71	40-121%	6	30%	
Phenanthrene	3.13	0.0400	0.0800	ug/L	4	4.00	---	78	59-120%	3	30%	
Pyrene	3.42	0.0400	0.0800	ug/L	4	4.00	---	86	57-126%	4	30%	
Carbazole	3.45	0.0600	0.120	ug/L	4	4.00	---	86	60-122%	3	30%	
Dibenzofuran	3.06	0.0400	0.0800	ug/L	4	4.00	---	77	53-120%	4	30%	
Bis(2-ethylhexyl)phthalate	3.30	0.800	1.60	ug/L	4	4.00	---	82	55-135%	0.6	30%	
Butyl benzyl phthalate	3.32	0.800	1.60	ug/L	4	4.00	---	83	53-134%	0.3	30%	
Diethylphthalate	3.31	0.800	1.60	ug/L	4	4.00	---	83	56-125%	2	30%	
Dimethylphthalate	3.28	0.800	1.60	ug/L	4	4.00	---	82	45-127%	3	30%	
Di-n-butylphthalate	3.45	0.800	1.60	ug/L	4	4.00	---	86	59-127%	0.9	30%	
Di-n-octyl phthalate	3.42	0.800	1.60	ug/L	4	4.00	---	85	51-140%	1	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 83 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		75 %		44-120 %		"						
Phenol-d6 (Surr)		30 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		79 %		50-134 %		"						
2-Fluorophenol (Surr)		41 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		91 %		43-140 %		"						

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Philip Nerenberg, Lab Director

Page 56 of 70

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****QUALITY CONTROL (QC) SAMPLE RESULTS****Total Metals by EPA 200.8 (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050197 - EPA 3015A						Water						
Blank (1050197-BLK1)			Prepared: 05/06/21 14:53		Analyzed: 05/06/21 17:45							
EPA 200.8												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
LCS (1050197-BS1)			Prepared: 05/06/21 14:53		Analyzed: 05/06/21 17:50							
EPA 200.8												
Arsenic	57.8	0.500	1.00	ug/L	1	55.6	---	104	85-115%	---	---	
Cadmium	57.0	0.100	0.200	ug/L	1	55.6	---	103	85-115%	---	---	
Chromium	56.6	0.500	1.00	ug/L	1	55.6	---	102	85-115%	---	---	
Mercury	1.13	0.0400	0.0800	ug/L	1	1.11	---	102	85-115%	---	---	
Zinc	57.5	2.00	4.00	ug/L	1	55.6	---	103	85-115%	---	---	
Duplicate (1050197-DUP1)			Prepared: 05/06/21 14:53		Analyzed: 05/06/21 18:14							
QC Source Sample: Non-SDG (A1D0966-08)												
Arsenic	1.69	0.500	1.00	ug/L	1	---	1.74	---	---	3	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	4.58	0.500	1.00	ug/L	1	---	4.51	---	---	2	20%	
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Zinc	25.0	2.00	4.00	ug/L	1	---	25.1	---	---	0.5	20%	
Matrix Spike (1050197-MS1)			Prepared: 05/06/21 14:53		Analyzed: 05/06/21 18:19							
QC Source Sample: Non-SDG (A1D0966-08)												
EPA 200.8												
Arsenic	59.3	0.500	1.00	ug/L	1	55.6	1.74	104	70-130%	---	---	
Cadmium	57.3	0.100	0.200	ug/L	1	55.6	ND	103	70-130%	---	---	
Chromium	59.8	0.500	1.00	ug/L	1	55.6	4.51	100	70-130%	---	---	
Mercury	1.11	0.0400	0.0800	ug/L	1	1.11	ND	100	70-130%	---	---	
Zinc	80.6	2.00	4.00	ug/L	1	55.6	25.1	100	70-130%	---	---	
Matrix Spike (1050197-MS2)			Prepared: 05/06/21 14:53		Analyzed: 05/06/21 18:29							

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050197 - EPA 3015A						Water						
Matrix Spike (1050197-MS2)			Prepared: 05/06/21 14:53		Analyzed: 05/06/21 18:29							
QC Source Sample: Non-SDG (A1D0967-01)												
EPA 200.8												
Arsenic	58.2	0.500	1.00	ug/L	1	55.6	0.574	104	70-130%	---	---	
Cadmium	56.6	0.100	0.200	ug/L	1	55.6	0.106	102	70-130%	---	---	
Chromium	59.5	0.500	1.00	ug/L	1	55.6	3.75	100	70-130%	---	---	
Mercury	1.12	0.0400	0.0800	ug/L	1	1.11	ND	100	70-130%	---	---	
Zinc	260	2.00	4.00	ug/L	1	55.6	205	99	70-130%	---	---	

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1D1005 - 05 24 21 1104

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050526 - EPA 3015A						Water						
Blank (1050526-BLK1)			Prepared: 05/14/21 15:03 Analyzed: 05/19/21 16:13									
EPA 200.8-LL												
Arsenic	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
LCS (1050526-BS1)			Prepared: 05/14/21 15:03 Analyzed: 05/19/21 16:20									
EPA 200.8-LL												
Arsenic	5.76	0.0500	0.100	ug/L	1	5.56	---	104	85-115%	---	---	
Cadmium	5.43	0.0250	0.0500	ug/L	1	5.56	---	98	85-115%	---	---	
Duplicate (1050526-DUP1)			Prepared: 05/14/21 15:03 Analyzed: 05/19/21 16:55									
QC Source Sample: Non-SDG (A1D1024-03)												
Arsenic	0.426	0.0500	0.100	ug/L	1	---	0.426	---	---	0.09	20%	
Cadmium	0.0583	0.0250	0.0500	ug/L	1	---	0.0474	---	---	21	20%	Q-05
Matrix Spike (1050526-MS1)			Prepared: 05/14/21 15:03 Analyzed: 05/19/21 17:02									
QC Source Sample: Non-SDG (A1D1024-03)												
EPA 200.8-LL												
Arsenic	6.13	0.0500	0.100	ug/L	1	5.56	0.426	103	70-130%	---	---	
Cadmium	5.62	0.0250	0.0500	ug/L	1	5.56	0.0474	100	70-130%	---	---	

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Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

QUALITY CONTROL (QC) SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1040974 - Total Suspended Solids						Water						
Blank (1040974-BLK1)			Prepared: 04/27/21 09:18 Analyzed: 04/29/21 09:21									
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Duplicate (1040974-DUP1)			Prepared: 04/27/21 09:18 Analyzed: 04/29/21 09:21									
QC Source Sample: Non-SDG (A1D0984-01)												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	ND	---	---	---	10%	
Duplicate (1040974-DUP2)			Prepared: 04/27/21 09:18 Analyzed: 04/29/21 09:21									
QC Source Sample: Non-SDG (A1D1013-02)												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	ND	---	---	---	10%	
Reference (1040974-SRM1)			Prepared: 04/27/21 09:18 Analyzed: 04/29/21 09:21									
SM 2540 D												
Total Suspended Solids	945			mg/L	1	951		99	87-116%	---	---	

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ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1D1005 - 05 24 21 1104****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx****Prep: EPA 3510C (Fuels/Acid Ext.)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041169							
A1D1005-01RE1	Water	NWTPH-Dx	04/24/21 05:45	04/30/21 14:42	1020mL/5mL	1000mL/5mL	0.98
A1D1005-02RE1	Water	NWTPH-Dx	04/24/21 06:15	04/30/21 14:42	1040mL/5mL	1000mL/5mL	0.96
A1D1005-03RE1	Water	NWTPH-Dx	04/24/21 05:50	04/30/21 14:42	1040mL/5mL	1000mL/5mL	0.96

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041086							
A1D1005-01	Water	NWTPH-Gx (MS)	04/24/21 05:45	04/29/21 09:00	5mL/5mL	5mL/5mL	1.00
Batch: 1041139							
A1D1005-02RE1	Water	NWTPH-Gx (MS)	04/24/21 06:15	04/30/21 09:32	5mL/5mL	5mL/5mL	1.00
A1D1005-03RE1	Water	NWTPH-Gx (MS)	04/24/21 05:50	04/30/21 09:32	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041086							
A1D1005-01	Water	EPA 8260D	04/24/21 05:45	04/29/21 09:00	5mL/5mL	5mL/5mL	1.00
Batch: 1041139							
A1D1005-02RE1	Water	EPA 8260D	04/24/21 06:15	04/30/21 09:32	5mL/5mL	5mL/5mL	1.00
A1D1005-03RE1	Water	EPA 8260D	04/24/21 05:50	04/30/21 09:32	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D SIM**Prep: EPA 5030B**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041149							
A1D1005-01	Water	EPA 8260D SIM	04/24/21 05:45	04/30/21 11:31	5mL/5mL	5mL/5mL	1.00
A1D1005-02	Water	EPA 8260D SIM	04/24/21 06:15	04/30/21 11:31	5mL/5mL	5mL/5mL	1.00
A1D1005-03	Water	EPA 8260D SIM	04/24/21 05:50	04/30/21 11:31	5mL/5mL	5mL/5mL	1.00
A1D1005-04	Water	EPA 8260D SIM	04/24/21 00:00	04/30/21 11:31	5mL/5mL	5mL/5mL	1.00
A1D1005-05	Water	EPA 8260D SIM	04/24/21 00:00	04/30/21 11:31	5mL/5mL	5mL/5mL	1.00
A1D1005-06	Water	EPA 8260D SIM	04/24/21 00:00	04/30/21 11:31	5mL/5mL	5mL/5mL	1.00

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GeoDesign, Inc.**
9450 SW Commerce Circle
Wilsonville, OR 97070Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart****Report ID:**
A1D1005 - 05 24 21 1104**SAMPLE PREPARATION INFORMATION****Volatile Organic Compounds by EPA 8260D SIM****Polychlorinated Biphenyls by EPA 8082A****Prep: EPA 3510C (Neutral pH)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1050125							
A1D1005-01	Water	EPA 8082A	04/24/21 05:45	05/05/21 10:05	1060mL/2mL	1000mL/2mL	0.94
A1D1005-02	Water	EPA 8082A	04/24/21 06:15	05/05/21 10:05	1060mL/2mL	1000mL/2mL	0.94
A1D1005-03	Water	EPA 8082A	04/24/21 05:50	05/05/21 10:05	1060mL/2mL	1000mL/2mL	0.94

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1041137							
A1D1005-01	Water	EPA 8270E	04/24/21 05:45	04/30/21 09:10	1060mL/1mL	1000mL/1mL	0.94
A1D1005-02RE1	Water	EPA 8270E	04/24/21 06:15	04/30/21 09:10	1030mL/1mL	1000mL/1mL	0.97
Batch: 1041177							
A1D1005-03RE1	Water	EPA 8270E	04/24/21 05:50	04/30/21 14:40	1030mL/1mL	1000mL/1mL	0.97

Total Metals by EPA 200.8 (ICPMS)**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1050197							
A1D1005-01	Water	EPA 200.8	04/24/21 05:45	05/06/21 14:53	45mL/50mL	45mL/50mL	1.00
A1D1005-02	Water	EPA 200.8	04/24/21 06:15	05/06/21 14:53	45mL/50mL	45mL/50mL	1.00
A1D1005-03	Water	EPA 200.8	04/24/21 05:50	05/06/21 14:53	45mL/50mL	45mL/50mL	1.00

Total Metals by EPA 200.8 (ICPMS) - Low Level**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1050526							
A1D1005-01	Water	EPA 200.8-LL	04/24/21 05:45	05/14/21 15:03	45mL/50mL	45mL/50mL	1.00
A1D1005-03	Water	EPA 200.8-LL	04/24/21 05:50	05/14/21 15:03	45mL/50mL	45mL/50mL	1.00

Solid and Moisture Determinations

Apex Laboratories

Philip Nerenberg, Lab Director

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1D1005 - 05 24 21 1104

SAMPLE PREPARATION INFORMATION

Solid and Moisture Determinations

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 1040974</u>							
A1D1005-01	Water	SM 2540 D	04/24/21 05:45	04/27/21 09:18			NA
A1D1005-02	Water	SM 2540 D	04/24/21 06:15	04/27/21 09:18			NA
A1D1005-03	Water	SM 2540 D	04/24/21 05:50	04/27/21 09:18			NA

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Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1D1005 - 05 24 21 1104

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- E-05** Estimated Result. Initial Calibration Verification (ICV) failed high. No affect on non-detect results.
- EST** Result reported as an Estimated Value. Initial Calibration Verification Standard (ICV) failed low
- ESTa** Result reported as an Estimated Value. Initial Calibration Verification Standard (ICV) failed low
- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- F-24** The chromatographic pattern does not resemble the fuel standard used for quantitation. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +17%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +28%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +30%. The results are reported as Estimated Values.
- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +31%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +68%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.

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503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1D1005 - 05 24 21 1104

- Q-54i** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -11%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- S-06** Surrogate recovery is outside of established control limits.
- T-02** This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.
- V-01** Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Project Number: **BCSAmerica-1-02**

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Report ID:

A1D1005 - 05 24 21 1104

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1D1005 - 05 24 21 1104

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY
Lab # A1D1005 COC 1 of 1

Company: GeoDesign, Inc. Project Mgr: Kyle Haggart Project Name: Former Automatic Vending Project #: BCS America-1-02
Address: 9450 SW Commerce Circle Phone: 503-945-8787 Email: Kyle.Haggart@GVS.com PO #

Sampled by: Tim Haining, Kyle Haggart

Site Location: OR WA CA
AK ID

LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCD	NWTPH-DX	NWTPH-GX	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vol Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	AL, Sb, Sn, Pb, Cu, Fe, Ni, Mn, Mo, Cr, Co, Ag, Se, As, Ba, Be, Bi, B, Br, Ca, Cd, Cl, Co, Cr, Cu, Fe, Ni, Pb, Mn, Mg, Zn, Hg, K, Li, Na, Ti, V, W, Y, Zn	TCLP Metals (8)	Dioxins/Furans	IBT	Phthalates	TSS	Archives		
SW-1 (042421)	4/14/15	5:45	SW	17		X					X	X		X												
SW-2 (042421)		6:15	SW	17		X					X	X		X												
DUP (042421)		5:50	SW	17		X					X	X		X												
SW-1-TB (042421)			TB																							
SW-2-TB (042421)			TB																							
DUP-TB (042421)			TB																							

SPECIAL INSTRUCTIONS:
low levels as discussed

Normal Turn Around Time (TAT) - 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: [Signature] Date: 4.24.21
Printed Name: Kyle Haggart Time: 9:49
Company: NVS

RECEIVED BY: Signature: [Signature] Date: 4/24/21
Printed Name: [Signature] Time: 9:49
Company: [Signature]

Apex Laboratories

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

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Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1D1005 - 05 24 21 1104

APEX LABS COOLER RECEIPT FORM

Client: Geodesign Element WO#: A1 D1005
Project/Project #: Former Automatic Vending / BCS America-1-02

Delivery Info:

Date/time received: 4/24/21 @ 9:44 By: KS
Delivered by: Apex ☒ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Envoy ☐ SDS ☐ Other ☐

Cooler Inspection Date/time inspected: 4/24/21 @ 9:44 By: KS

Chain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒

Signed/dated by client? Yes ☒ No ☐

Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>5.3</u>	<u>3.3</u>	<u>4.1</u>				
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) ☒ Possible reason why: _____

Green dots applied to out of temperature samples? Yes ☒ No ☐

Out of temperature samples form initiated? Yes ☒ No ☐

Sample Inspection: Date/time inspected: 4/24/21 @ 1443 By: AKK

All samples intact? Yes ☒ No ☐ Comments: _____

Bottle labels/COCs agree? Yes ☐ No ☒ Comments: DUP (042421) 16 Conts. received, 17 on lot. TBS #2703. SW-2 (042421) ID on 1/8 UP Ambers ready SW-2 (042421).

COC/container discrepancies form initiated? Yes ☐ No ☒

Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____

Do VOA vials have visible headspace? Yes ☒ No ☒ NA ☐

Comments: SW-1-TB 212 H8, SW-2-TB 112 H8

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information:

Labeled by: AKK

Witness: KS

Cooler Inspected by: KS

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-57689-1
Client Project/Site: A1D1005

For:

Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Philip Nerenberg



Authorized for release by:
5/12/2021 4:51:01 PM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Job ID: 570-57689-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative 570-57689-1

Comments

No additional comments.

Receipt

The samples were received on 4/28/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.7° C.

GC/MS Semi VOA

Method Organotins SIM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-147233 and analytical batch 570-148960 recovered outside control limits for the following analyte: Monobutyltin. Both percent recoveries were within passing QC limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Client Sample ID: SW-1(042421)

Lab Sample ID: 570-57689-1

No Detections.

Client Sample ID: SW-2(042421)

Lab Sample ID: 570-57689-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibutyltin	24		2.9	1.7	ng/L	1		Organotins SIM	Total/NA

Client Sample ID: DUP(042421)

Lab Sample ID: 570-57689-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Client Sample ID: SW-1(042421)
Date Collected: 04/24/21 05:45
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57689-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	1.9	ng/L		04/30/21 11:09	05/10/21 16:36	1
Tributyltin	ND		3.0	1.4	ng/L		04/30/21 11:09	05/10/21 16:36	1
Dibutyltin	ND		3.0	1.8	ng/L		04/30/21 11:09	05/10/21 16:36	1
Monobutyltin	ND	*1	3.0	2.4	ng/L		04/30/21 11:09	05/10/21 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	60		10 - 120				04/30/21 11:09	05/10/21 16:36	1

Client Sample ID: SW-2(042421)
Date Collected: 04/24/21 06:15
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57689-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		2.9	1.9	ng/L		04/30/21 11:09	05/10/21 16:53	1
Tributyltin	ND		2.9	1.3	ng/L		04/30/21 11:09	05/10/21 16:53	1
Dibutyltin	24		2.9	1.7	ng/L		04/30/21 11:09	05/10/21 16:53	1
Monobutyltin	ND	*1	2.9	2.3	ng/L		04/30/21 11:09	05/10/21 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	48		10 - 120				04/30/21 11:09	05/10/21 16:53	1

Client Sample ID: DUP(042421)
Date Collected: 04/24/21 05:50
Date Received: 04/28/21 10:30

Lab Sample ID: 570-57689-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	2.0	ng/L		04/30/21 11:09	05/10/21 17:11	1
Tributyltin	ND		3.0	1.4	ng/L		04/30/21 11:09	05/10/21 17:11	1
Dibutyltin	ND		3.0	1.8	ng/L		04/30/21 11:09	05/10/21 17:11	1
Monobutyltin	ND	*1	3.0	2.4	ng/L		04/30/21 11:09	05/10/21 17:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tripentyltin	55		10 - 120				04/30/21 11:09	05/10/21 17:11	1

Surrogate Summary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
570-57689-1	SW-1(042421)	60
570-57689-2	SW-2(042421)	48
570-57689-3	DUP(042421)	55
LCS 570-147233/2-A	Lab Control Sample	71
LCSD 570-147233/3-A	Lab Control Sample Dup	80
MB 570-147233/1-A	Method Blank	86

Surrogate Legend

TPTT = Triphenyltin

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-147233/1-A

Matrix: Water

Analysis Batch: 148960

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147233

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	1.9	ng/L		04/30/21 11:09	05/10/21 15:41	1
Tributyltin	ND		3.0	1.4	ng/L		04/30/21 11:09	05/10/21 15:41	1
Dibutyltin	ND		3.0	1.8	ng/L		04/30/21 11:09	05/10/21 15:41	1
Monobutyltin	ND		3.0	2.4	ng/L		04/30/21 11:09	05/10/21 15:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	86		10 - 120	04/30/21 11:09	05/10/21 15:41	1

Lab Sample ID: LCS 570-147233/2-A

Matrix: Water

Analysis Batch: 148960

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147233

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrabutyltin	200	178.5		ng/L		89	21 - 124
Tributyltin	200	132.9		ng/L		66	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tripentyltin	71		10 - 120

Lab Sample ID: LCSD 570-147233/3-A

Matrix: Water

Analysis Batch: 148960

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 147233

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrabutyltin	200	171.8		ng/L		86	21 - 124	4	30
Tributyltin	200	148.8		ng/L		74	10 - 120	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tripentyltin	80		10 - 120

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

GC/MS Semi VOA

Prep Batch: 147233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-57689-1	SW-1(042421)	Total/NA	Water	Organotin	
570-57689-2	SW-2(042421)	Total/NA	Water	Organotin	
570-57689-3	DUP(042421)	Total/NA	Water	Organotin	
MB 570-147233/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-147233/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-147233/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

Analysis Batch: 148960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-57689-1	SW-1(042421)	Total/NA	Water	Organotins SIM	147233
570-57689-2	SW-2(042421)	Total/NA	Water	Organotins SIM	147233
570-57689-3	DUP(042421)	Total/NA	Water	Organotins SIM	147233
MB 570-147233/1-A	Method Blank	Total/NA	Water	Organotins SIM	147233
LCS 570-147233/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	147233
LCSD 570-147233/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	147233

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Client Sample ID: SW-1(042421)

Lab Sample ID: 570-57689-1

Date Collected: 04/24/21 05:45

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			995.3 mL	1 mL	147233	04/30/21 11:09	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			148960	05/10/21 16:36	AJ2Q	ECL 1
Instrument ID: GCMSY										

Client Sample ID: SW-2(042421)

Lab Sample ID: 570-57689-2

Date Collected: 04/24/21 06:15

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1028.6 mL	1 mL	147233	04/30/21 11:09	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			148960	05/10/21 16:53	AJ2Q	ECL 1
Instrument ID: GCMSY										

Client Sample ID: DUP(042421)

Lab Sample ID: 570-57689-3

Date Collected: 04/24/21 05:50

Matrix: Water

Date Received: 04/28/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			992.3 mL	1 mL	147233	04/30/21 11:09	UWEZ	ECL 1
Total/NA	Analysis	Organotins SIM		1			148960	05/10/21 17:11	AJ2Q	ECL 1
Instrument ID: GCMSY										

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Laboratory: Eurofins Calscience LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	CA300001	01-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
Organotins SIM	Organotin	Water	Dibutyltin
Organotins SIM	Organotin	Water	Monobutyltin
Organotins SIM	Organotin	Water	Tetrabutyltin
Organotins SIM	Organotin	Water	Tributyltin
Washington	State	C916-18	10-11-21

Method Summary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Method	Method Description	Protocol	Laboratory
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	ECL 1
Organotin	Extraction (Organotins)	WRC	ECL 1

Protocol References:

Lab SOP = Laboratory Standard Operating Procedure

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A1D1005

Job ID: 570-57689-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-57689-1	SW-1(042421)	Water	04/24/21 05:45	04/28/21 10:30	
570-57689-2	SW-2(042421)	Water	04/24/21 06:15	04/28/21 10:30	
570-57689-3	DUP(042421)	Water	04/24/21 05:50	04/28/21 10:30	

57685

SUBCONTRACT ORDER

Apex Laboratories

A1D1005

05/12/21

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Eurofins_CalScience
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone (714) 895-5494
Fax: (714) 894-7501

Sample Name: SW-1(042421) Water Sampled: 04/24/21 05:45 (A1D1005-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	05/12/21 17:00	05/08/21 05:45	
Containers Supplied:			
(P)1 L Amber Glass - Non Preserved			
(Q)1 L Amber Glass - Non Preserved			

ID on 1/8 UP Ambers reads SW-2(042121).

Sample Name: SW-2(042421) Water Sampled: 04/24/21 06:15 (A1D1005-02)

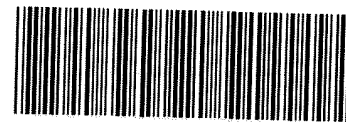
Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	05/12/21 17:00	05/08/21 06:15	
Containers Supplied:			
(P)1 L Amber Glass - Non Preserved			
(Q)1 L Amber Glass - Non Preserved			

16 Conts. received, 17 on CoC.

Sample Name: DUP(042421) Water Sampled: 04/24/21 05:50 (A1D1005-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	05/12/21 17:00	05/08/21 05:50	
Containers Supplied:			
(O)1 L Amber Glass - Non Preserved			
(P)1 L Amber Glass - Non Preserved			

Standard TAT



570-57689 Chain of Custody

Released By 4/27/21
Fed Ex (Shipper)

Received By 4/28/21 10:30
Date

Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-57689-1

Login Number: 57689

List Number: 1

Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

May 06, 2021

Mr. Philip Nerenberg
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: DXN & PCB Subcontract
Work Order: 18042
SDG: A1D1005

Dear Mr. Nerenberg:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 28, 2021. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Enclosures

SUBCONTRACT ORDER

Apex Laboratories

A1D1005

CFA WO #18042

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone : (910) 795-0421
Fax: -

Sample Name: SW-1(042421)

Water

Sampled: 04/24/21 05:45

(A1D1005-01)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	05/12/21 17:00	04/24/22 05:45	
Containers Supplied:			
(N)1 L Amber Glass - Non Preserved			
(O)1 L Amber Glass - Non Preserved			

ID on 1/8 UP Ambers reads SW-2(042121).

Sample Name: SW-2(042421)

Water

Sampled: 04/24/21 06:15

(A1D1005-02)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	05/12/21 17:00	04/24/22 06:15	
Containers Supplied:			
(N)1 L Amber Glass - Non Preserved			
(O)1 L Amber Glass - Non Preserved			

16 Conts. received, 17 on CoC.

Sample Name: DUP(042421)

Water

Sampled: 04/24/21 05:50

(A1D1005-03)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	05/12/21 17:00	04/24/22 05:50	
Containers Supplied:			
(M)1 L Amber Glass - Non Preserved			
(N)1 L Amber Glass - Non Preserved			

Standard TAT

Temp. = 3.3°

Released By: [Signature] Date: 4/27/21 Received By: [Signature] Date: 4/28/21 11:40

Fed Ex (Shipper)

Released By: [Signature] Date: 4/27/21 Received By: [Signature] Date: 4/28/21 11:40

Fed Ex (Shipper)

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: <u>Alex</u>	Work Order: <u>18042</u>
---------------------	--------------------------

Shipping Company: <u>FedEx</u>	Date/Time Received: <u>4/23/21</u> <u>11:40</u>
--------------------------------	-------------------------------------------------

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?			<input checked="" type="checkbox"/>
Samples < 2x background?			<input checked="" type="checkbox"/>

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?			<input checked="" type="checkbox"/>	Seal intact? Yes No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags loose ice blue ice dry ice none other (describe) <u>34-01 = 3.30</u> Temperature Blank present: Yes <input checked="" type="checkbox"/> No
5 Aqueous samples found to have visible solids?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: <u>all - minimal solids</u>
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample IDs, containers affected and pH observed: <u>all - pH = 6</u> If preservative added, Lot#:
7 Samples requiring preservation have no residual chlorine?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: If preservative added, Lot#:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			List type and number of containers / Sample IDs, containers affected: <u>received 6 - 1L NMAmbler</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A1D1005
Work Order 18042**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Liquids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3520C
Analytical Batch Number: 46722
Clean Up Batch Number: 46719
Extraction Batch Number: 46718

Sample Analysis

Samples were received at 3.3°C. (18042001,18042002,18042003).
The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12029194	Method Blank (MB)
12029195	Laboratory Control Sample (LCS)
12029196	Laboratory Control Sample Duplicate (LCSD)
18042001	SW-1(042421)
18042002	SW-2(042421)
18042003	DUP(042421)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 20.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information**Certification Statement**

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information**Receipt Temperature**

Samples were received within temperature requirements.

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information**Nonconformance (NCR) Documentation**

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP763_1	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A1D1005 CFA Work Order: 18042


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Erin Suhrie

Date: 06 MAY 2021

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1D1005
Lab Sample ID: 18042001
Client Sample: 1613B Water
Client ID: SW-1(042421)
Batch ID: 46722
Run Date: 05/01/2021 01:32
Data File: b30apr21a_2-6
Prep Batch: 46718
Prep Date: 29-APR-21

Client: APEX001
Date Collected: 04/24/2021 05:45
Date Received: 04/28/2021 11:40

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1029 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	2.02	pg/L	2.02	9.72
40321-76-4	1,2,3,7,8-PeCDD	U	1.68	pg/L	1.68	48.6
39227-28-6	1,2,3,4,7,8-HxCDD	U	2.95	pg/L	2.95	48.6
57653-85-7	1,2,3,6,7,8-HxCDD	U	2.86	pg/L	2.86	48.6
19408-74-3	1,2,3,7,8,9-HxCDD	U	2.93	pg/L	2.93	48.6
35822-46-9	1,2,3,4,6,7,8-HpCDD		63.0	pg/L	10.8	48.6
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1220	pg/L	22.5	97.2
51207-31-9	2,3,7,8-TCDF	U	2.24	pg/L	2.24	9.72
57117-41-6	1,2,3,7,8-PeCDF	U	1.47	pg/L	1.47	48.6
57117-31-4	2,3,4,7,8-PeCDF	U	1.32	pg/L	1.32	48.6
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.26	pg/L	1.26	48.6
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.31	pg/L	1.31	48.6
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.30	pg/L	1.30	48.6
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.10	pg/L	2.10	48.6
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.82	pg/L	1.69	48.6
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.62	pg/L	2.62	48.6
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	7.91	pg/L	6.18	97.2
41903-57-5	Total TeCDD	U	2.02	pg/L	2.02	9.72
36088-22-9	Total PeCDD	U	1.68	pg/L	1.68	48.6
34465-46-8	Total HxCDD	U	2.86	pg/L	2.86	48.6
37871-00-4	Total HpCDD		144	pg/L	10.8	48.6
30402-14-3	Total TeCDF	U	2.24	pg/L	2.24	9.72
30402-15-4	Total PeCDF	U	1.32	pg/L	1.32	48.6
55684-94-1	Total HxCDF	JK	3.42	pg/L	1.26	48.6
38998-75-3	Total HpCDF	J	9.39	pg/L	1.69	48.6
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		1.03	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		3.96	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1340	1940	pg/L	68.9	(25%-164%)
13C-1,2,3,7,8-PeCDD		1360	1940	pg/L	69.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1190	1940	pg/L	61.3	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1350	1940	pg/L	69.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1160	1940	pg/L	59.6	(23%-140%)
13C-OCDD		2220	3890	pg/L	57.2	(17%-157%)
13C-2,3,7,8-TCDF		1040	1940	pg/L	53.4	(24%-169%)
13C-1,2,3,7,8-PeCDF		1230	1940	pg/L	63.4	(24%-185%)
13C-2,3,4,7,8-PeCDF		1270	1940	pg/L	65.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1150	1940	pg/L	59.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1230	1940	pg/L	63.3	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1180	1940	pg/L	61.0	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1170	1940	pg/L	60.0	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A1D1005	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	18042001	Date Collected:	04/24/2021 05:45	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	04/28/2021 11:40		
Client ID:	SW-1(042421)			Prep Basis:	As Received
Batch ID:	46722	Method:	EPA Method 1613B		
Run Date:	05/01/2021 01:32	Analyst:	MLL	Instrument:	HRP763
Data File:	b30apr21a_2-6			Dilution:	1
Prep Batch:	46718	Prep Method:	SW846 3520C		
Prep Date:	29-APR-21	Prep Aliquot:	1029 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1170	1940	pg/L	60.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1170	1940	pg/L	60.1	(26%-138%)
37Cl-2,3,7,8-TCDD			151	194	pg/L	77.5	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1D1005
Lab Sample ID: 18042002
Client Sample: 1613B Water
Client ID: SW-2(042421)
Batch ID: 46722
Run Date: 05/01/2021 02:22
Data File: b30apr21a_2-7
Prep Batch: 46718
Prep Date: 29-APR-21

Client: APEX001
Date Collected: 04/24/2021 06:15
Date Received: 04/28/2021 11:40

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1014.3 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.90	pg/L	1.90	9.86
40321-76-4	1,2,3,7,8-PeCDD	U	2.07	pg/L	2.07	49.3
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.06	pg/L	4.06	49.3
57653-85-7	1,2,3,6,7,8-HxCDD	U	3.79	pg/L	3.79	49.3
19408-74-3	1,2,3,7,8,9-HxCDD	U	3.94	pg/L	3.94	49.3
35822-46-9	1,2,3,4,6,7,8-HpCDD		132	pg/L	14.6	49.3
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2760	pg/L	26.2	98.6
51207-31-9	2,3,7,8-TCDF	U	2.13	pg/L	2.13	9.86
57117-41-6	1,2,3,7,8-PeCDF	U	1.55	pg/L	1.55	49.3
57117-31-4	2,3,4,7,8-PeCDF	U	1.52	pg/L	1.52	49.3
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.96	pg/L	1.96	49.3
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.88	pg/L	1.88	49.3
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.92	pg/L	1.92	49.3
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.82	pg/L	2.82	49.3
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	4.79	pg/L	2.58	49.3
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	3.79	pg/L	3.79	49.3
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	7.08	pg/L	6.03	98.6
41903-57-5	Total TeCDD	U	1.90	pg/L	1.90	9.86
36088-22-9	Total PeCDD	U	2.07	pg/L	2.07	49.3
34465-46-8	Total HxCDD	JK	16.9	pg/L	3.79	49.3
37871-00-4	Total HpCDD		319	pg/L	14.6	49.3
30402-14-3	Total TeCDF	U	2.13	pg/L	2.13	9.86
30402-15-4	Total PeCDF	JK	2.07	pg/L	1.25	49.3
55684-94-1	Total HxCDF	J	5.76	pg/L	1.88	49.3
38998-75-3	Total HpCDF	J	16.2	pg/L	2.58	49.3
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		2.20	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		5.58	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1410	1970	pg/L	71.8	(25%-164%)
13C-1,2,3,7,8-PeCDD		1470	1970	pg/L	74.6	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1260	1970	pg/L	64.1	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1460	1970	pg/L	74.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1390	1970	pg/L	70.6	(23%-140%)
13C-OCDD		2680	3940	pg/L	68.0	(17%-157%)
13C-2,3,7,8-TCDF		1160	1970	pg/L	58.9	(24%-169%)
13C-1,2,3,7,8-PeCDF		1380	1970	pg/L	69.8	(24%-185%)
13C-2,3,4,7,8-PeCDF		1390	1970	pg/L	70.7	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1250	1970	pg/L	63.3	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1340	1970	pg/L	68.1	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1350	1970	pg/L	68.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1320	1970	pg/L	66.8	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A1D1005	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	18042002	Date Collected:	04/24/2021 06:15	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	04/28/2021 11:40		
Client ID:	SW-2(042421)			Prep Basis:	As Received
Batch ID:	46722	Method:	EPA Method 1613B		
Run Date:	05/01/2021 02:22	Analyst:	MLL	Instrument:	HRP763
Data File:	b30apr21a_2-7			Dilution:	1
Prep Batch:	46718	Prep Method:	SW846 3520C		
Prep Date:	29-APR-21	Prep Aliquot:	1014.3 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1270	1970	pg/L	64.5	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1310	1970	pg/L	66.4	(26%-138%)
37Cl-2,3,7,8-TCDD			155	197	pg/L	78.5	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1D1005
Lab Sample ID: 18042003
Client Sample: 1613B Water
Client ID: DUP(042421)
Batch ID: 46722
Run Date: 05/01/2021 03:12
Data File: b30apr21a_2-8
Prep Batch: 46718
Prep Date: 29-APR-21

Client: APEX001
Date Collected: 04/24/2021 05:50
Date Received: 04/28/2021 11:40

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1012.4 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.98	pg/L	1.98	9.88
40321-76-4	1,2,3,7,8-PeCDD	U	2.27	pg/L	2.27	49.4
39227-28-6	1,2,3,4,7,8-HxCDD	U	3.08	pg/L	3.08	49.4
57653-85-7	1,2,3,6,7,8-HxCDD	U	2.94	pg/L	2.94	49.4
19408-74-3	1,2,3,7,8,9-HxCDD	U	3.02	pg/L	3.02	49.4
35822-46-9	1,2,3,4,6,7,8-HpCDD		69.1	pg/L	10.3	49.4
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1400	pg/L	19.2	98.8
51207-31-9	2,3,7,8-TCDF	U	2.31	pg/L	2.31	9.88
57117-41-6	1,2,3,7,8-PeCDF	U	1.35	pg/L	1.35	49.4
57117-31-4	2,3,4,7,8-PeCDF	U	1.21	pg/L	1.21	49.4
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.52	pg/L	1.52	49.4
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.57	pg/L	1.57	49.4
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.56	pg/L	1.56	49.4
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.37	pg/L	2.37	49.4
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	2.71	pg/L	2.09	49.4
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	3.06	pg/L	3.06	49.4
39001-02-0	1,2,3,4,6,7,8,9-OCDF	JK	8.30	pg/L	6.78	98.8
41903-57-5	Total TeCDD	U	1.98	pg/L	1.98	9.88
36088-22-9	Total PeCDD	U	2.27	pg/L	2.27	49.4
34465-46-8	Total HxCDD	JK	5.91	pg/L	2.94	49.4
37871-00-4	Total HpCDD		157	pg/L	10.3	49.4
30402-14-3	Total TeCDF	U	2.31	pg/L	2.31	9.88
30402-15-4	Total PeCDF	U	1.21	pg/L	1.21	49.4
55684-94-1	Total HxCDF	U	1.52	pg/L	1.52	49.4
38998-75-3	Total HpCDF	JK	11.5	pg/L	2.09	49.4
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		1.14	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		4.40	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1340	1980	pg/L	68.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		1430	1980	pg/L	72.4	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1140	1980	pg/L	57.6	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1270	1980	pg/L	64.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1190	1980	pg/L	60.5	(23%-140%)
13C-OCDD		2230	3950	pg/L	56.4	(17%-157%)
13C-2,3,7,8-TCDF		1090	1980	pg/L	55.1	(24%-169%)
13C-1,2,3,7,8-PeCDF		1330	1980	pg/L	67.2	(24%-185%)
13C-2,3,4,7,8-PeCDF		1340	1980	pg/L	67.8	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1120	1980	pg/L	56.7	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1180	1980	pg/L	59.6	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1170	1980	pg/L	59.0	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1180	1980	pg/L	59.6	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A1D1005	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	18042003	Date Collected:	04/24/2021 05:50	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	04/28/2021 11:40		
Client ID:	DUP(042421)			Prep Basis:	As Received
Batch ID:	46722	Method:	EPA Method 1613B		
Run Date:	05/01/2021 03:12	Analyst:	MLL	Instrument:	HRP763
Data File:	b30apr21a_2-8			Dilution:	1
Prep Batch:	46718	Prep Method:	SW846 3520C		
Prep Date:	29-APR-21	Prep Aliquot:	1012.4 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1110	1980	pg/L	56.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1190	1980	pg/L	60.1	(26%-138%)
37Cl-2,3,7,8-TCDD			166	198	pg/L	83.9	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans Surrogate Recovery Report

SDG Number: A1D1005

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12029195	LCS for batch 46718	13C-2,3,7,8-TCDD		82.7	(20%-175%)
		13C-1,2,3,7,8-PeCDD		88.5	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		75.6	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		81.9	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		78.0	(22%-166%)
		13C-OCDD		69.8	(13%-199%)
		13C-2,3,7,8-TCDF		67.7	(22%-152%)
		13C-1,2,3,7,8-PeCDF		81.0	(21%-192%)
		13C-2,3,4,7,8-PeCDF		84.7	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		70.8	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		74.8	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		76.6	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		74.9	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		72.1	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		77.5	(20%-186%)
		37Cl-2,3,7,8-TCDD		86.6	(31%-191%)
12029196	LCSD for batch 46718	13C-2,3,7,8-TCDD		80.7	(20%-175%)
		13C-1,2,3,7,8-PeCDD		81.5	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		70.8	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		78.0	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		75.0	(22%-166%)
		13C-OCDD		72.5	(13%-199%)
		13C-2,3,7,8-TCDF		63.9	(22%-152%)
		13C-1,2,3,7,8-PeCDF		75.2	(21%-192%)
		13C-2,3,4,7,8-PeCDF		77.1	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		66.3	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		70.3	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		72.4	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		70.3	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		70.0	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		72.5	(20%-186%)
		37Cl-2,3,7,8-TCDD		92.7	(31%-191%)
12029194	MB for batch 46718	13C-2,3,7,8-TCDD		79.0	(25%-164%)
		13C-1,2,3,7,8-PeCDD		81.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		67.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		75.9	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		69.1	(23%-140%)
		13C-OCDD		66.2	(17%-157%)
		13C-2,3,7,8-TCDF		63.9	(24%-169%)
		13C-1,2,3,7,8-PeCDF		75.4	(24%-185%)
		13C-2,3,4,7,8-PeCDF		78.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		63.8	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		67.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		70.1	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		70.8	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		65.5	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		70.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		88.2	(35%-197%)
18042001	SW-1(042421)	13C-2,3,7,8-TCDD		68.9	(25%-164%)

Hi-Res Dioxins/Furans Surrogate Recovery Report

SDG Number: A1D1005

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
18042001	SW-1(042421)	13C-1,2,3,7,8-PeCDD		69.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		61.3	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		69.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		59.6	(23%-140%)
		13C-OCDD		57.2	(17%-157%)
		13C-2,3,7,8-TCDF		53.4	(24%-169%)
		13C-1,2,3,7,8-PeCDF		63.4	(24%-185%)
		13C-2,3,4,7,8-PeCDF		65.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		59.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		63.3	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		61.0	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		60.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		60.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		60.1	(26%-138%)
		37Cl-2,3,7,8-TCDD		77.5	(35%-197%)
18042002	SW-2(042421)	13C-2,3,7,8-TCDD		71.8	(25%-164%)
		13C-1,2,3,7,8-PeCDD		74.6	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		64.1	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		74.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		70.6	(23%-140%)
		13C-OCDD		68.0	(17%-157%)
		13C-2,3,7,8-TCDF		58.9	(24%-169%)
		13C-1,2,3,7,8-PeCDF		69.8	(24%-185%)
		13C-2,3,4,7,8-PeCDF		70.7	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		63.3	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		68.1	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		68.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		66.8	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		64.5	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		66.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		78.5	(35%-197%)
18042003	DUP(042421)	13C-2,3,7,8-TCDD		68.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		72.4	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		57.6	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		64.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		60.5	(23%-140%)
		13C-OCDD		56.4	(17%-157%)
		13C-2,3,7,8-TCDF		55.1	(24%-169%)
		13C-1,2,3,7,8-PeCDF		67.2	(24%-185%)
		13C-2,3,4,7,8-PeCDF		67.8	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		56.7	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		59.6	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		59.0	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		59.6	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		56.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		60.1	(26%-138%)
		37Cl-2,3,7,8-TCDD		83.9	(35%-197%)

* Recovery outside Acceptance Limits

**Hi-Res Dioxins/Furans
Surrogate Recovery Report**

SDG Number: A1D1005

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
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* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: A1D1005

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 46718

Matrix: WATER

Lab Sample ID: 12029195

Instrument: HRP763

Analysis Date: 04/30/2021 21:23

Dilution: 1

Analyst: MLL

Prep Batch ID: 46718

Batch ID: 46722

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	200	180	90	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	1000	953	95.3	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	1000	949	94.9	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	1000	986	98.6	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	1000	983	98.3	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	1000	955	95.5	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	2000	1920	96	78-144
51207-31-9	LCS 2,3,7,8-TCDF	200	184	92.2	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	1000	990	99	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	1000	926	92.6	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	1000	991	99.1	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	1000	1010	101	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	1000	977	97.7	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	1000	949	94.9	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	1000	968	96.8	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	1000	905	90.5	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	2000	1970	98.6	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 2 of 2

SDG Number: A1D1005

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 46718

Matrix: WATER

Lab Sample ID: 12029196

Instrument: HRP763

Analysis Date: 04/30/2021 22:12

Dilution: 1

Analyst: MLL

Prep Batch ID: 46718

Batch ID: 46722

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	200	179	89.7	67-158	0.312	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	1000	968	96.8	70-142	1.46	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	1000	971	97.1	70-164	2.31	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	1000	990	99	76-134	0.462	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	1000	995	99.5	64-162	1.25	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	1000	1020	102	70-140	6.87	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	2000	1840	91.8	78-144	4.55	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	200	186	92.9	75-158	0.767	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	1000	1020	102	80-134	2.97	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	1000	978	97.8	68-160	5.52	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	1000	1030	103	72-134	3.75	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	1000	1030	103	84-130	1.88	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	1000	1000	100	70-156	2.72	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	1000	968	96.8	78-130	2.00	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	1000	948	94.8	82-122	2.08	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	1000	926	92.6	78-138	2.20	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	2000	1880	94.1	63-170	4.63	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A1D1005
Client ID: MB for batch 46718
Lab Sample ID: 12029194
Column:

Client: APEX001
Instrument ID: HRP763
Prep Date: 29-APR-21

Matrix: WATER
Data File: b30apr21a_2-3
Analyzed: 04/30/21 23:02

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 46718	12029195	b30apr21a_2-1	04/30/21	2123
02 LCSD for batch 46718	12029196	b30apr21a_2-2	04/30/21	2212
03 SW-1(042421)	18042001	b30apr21a_2-6	05/01/21	0132
04 SW-2(042421)	18042002	b30apr21a_2-7	05/01/21	0222
05 DUP(042421)	18042003	b30apr21a_2-8	05/01/21	0312

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1D1005
Lab Sample ID: 12029194
Client Sample: QC for batch 46718
Client ID: MB for batch 46718
Batch ID: 46722
Run Date: 04/30/2021 23:02
Data File: b30apr21a_2-3
Prep Batch: 46718
Prep Date: 29-APR-21

Client: APEX001

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.60	pg/L	1.60	10.0
40321-76-4	1,2,3,7,8-PeCDD	U	1.29	pg/L	1.29	50.0
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.64	pg/L	1.64	50.0
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.60	pg/L	1.60	50.0
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.63	pg/L	1.63	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	2.66	pg/L	2.66	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD	U	4.08	pg/L	4.08	100
51207-31-9	2,3,7,8-TCDF	U	1.82	pg/L	1.82	10.0
57117-41-6	1,2,3,7,8-PeCDF	U	1.26	pg/L	1.26	50.0
57117-31-4	2,3,4,7,8-PeCDF	U	1.11	pg/L	1.11	50.0
70648-26-9	1,2,3,4,7,8-HxCDF	U	0.964	pg/L	0.964	50.0
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.934	pg/L	0.934	50.0
60851-34-5	2,3,4,6,7,8-HxCDF	U	0.966	pg/L	0.966	50.0
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.41	pg/L	1.41	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	1.03	pg/L	1.03	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	1.53	pg/L	1.53	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	5.22	pg/L	5.22	100
41903-57-5	Total TeCDD	U	1.60	pg/L	1.60	10.0
36088-22-9	Total PeCDD	U	1.29	pg/L	1.29	50.0
34465-46-8	Total HxCDD	U	1.60	pg/L	1.60	50.0
37871-00-4	Total HpCDD	U	2.66	pg/L	2.66	50.0
30402-14-3	Total TeCDF	U	1.82	pg/L	1.82	10.0
30402-15-4	Total PeCDF	U	1.11	pg/L	1.11	50.0
55684-94-1	Total HxCDF	U	0.934	pg/L	0.934	50.0
38998-75-3	Total HpCDF	U	1.03	pg/L	1.03	50.0
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.000	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.21	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1580	2000	pg/L	79.0	(25%-164%)
13C-1,2,3,7,8-PeCDD		1630	2000	pg/L	81.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1350	2000	pg/L	67.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1520	2000	pg/L	75.9	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1380	2000	pg/L	69.1	(23%-140%)
13C-OCDD		2650	4000	pg/L	66.2	(17%-157%)
13C-2,3,7,8-TCDF		1280	2000	pg/L	63.9	(24%-169%)
13C-1,2,3,7,8-PeCDF		1510	2000	pg/L	75.4	(24%-185%)
13C-2,3,4,7,8-PeCDF		1580	2000	pg/L	78.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1280	2000	pg/L	63.8	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1360	2000	pg/L	67.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1400	2000	pg/L	70.1	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1420	2000	pg/L	70.8	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1D1005	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029194			Matrix:	WATER
Client Sample:	QC for batch 46718				
Client ID:	MB for batch 46718			Prep Basis:	As Received
Batch ID:	46722	Method:	EPA Method 1613B		
Run Date:	04/30/2021 23:02	Analyst:	MLL	Instrument:	HRP763
Data File:	b30apr21a_2-3			Dilution:	1
Prep Batch:	46718	Prep Method:	SW846 3520C		
Prep Date:	29-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1310	2000	pg/L	65.5	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1410	2000	pg/L	70.6	(26%-138%)
37Cl-2,3,7,8-TCDD			176	200	pg/L	88.2	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary				Page 1 of 1	
SDG Number:	A1D1005	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029195			Matrix:	WATER
Client Sample:	QC for batch 46718				
Client ID:	LCS for batch 46718			Prep Basis:	As Received
Batch ID:	46722	Method:	EPA Method 1613B		
Run Date:	04/30/2021 21:23	Analyst:	MLL	Instrument:	HRP763
Data File:	b30apr21a_2-1			Dilution:	1
Prep Batch:	46718	Prep Method:	SW846 3520C		
Prep Date:	29-APR-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		180	pg/L	1.69	10.0
40321-76-4	1,2,3,7,8-PeCDD		953	pg/L	4.24	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		949	pg/L	7.94	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		986	pg/L	7.58	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		983	pg/L	7.82	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		955	pg/L	15.7	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1920	pg/L	19.8	100
51207-31-9	2,3,7,8-TCDF		184	pg/L	2.04	10.0
57117-41-6	1,2,3,7,8-PeCDF		990	pg/L	5.94	50.0
57117-31-4	2,3,4,7,8-PeCDF		926	pg/L	5.10	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		991	pg/L	7.74	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1010	pg/L	7.78	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		977	pg/L	8.24	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		949	pg/L	12.2	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		968	pg/L	10.7	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		905	pg/L	14.7	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1970	pg/L	16.6	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1650	2000	pg/L	82.7	(20%-175%)
13C-1,2,3,7,8-PeCDD		1770	2000	pg/L	88.5	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1510	2000	pg/L	75.6	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1640	2000	pg/L	81.9	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1560	2000	pg/L	78.0	(22%-166%)
13C-OCDD		2790	4000	pg/L	69.8	(13%-199%)
13C-2,3,7,8-TCDF		1350	2000	pg/L	67.7	(22%-152%)
13C-1,2,3,7,8-PeCDF		1620	2000	pg/L	81.0	(21%-192%)
13C-2,3,4,7,8-PeCDF		1690	2000	pg/L	84.7	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1420	2000	pg/L	70.8	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1500	2000	pg/L	74.8	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1530	2000	pg/L	76.6	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1500	2000	pg/L	74.9	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1440	2000	pg/L	72.1	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1550	2000	pg/L	77.5	(20%-186%)
37Cl-2,3,7,8-TCDD		173	200	pg/L	86.6	(31%-191%)

Comments:
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number: A1D1005
Lab Sample ID: 12029196
Client Sample: QC for batch 46718
Client ID: LCSD for batch 46718
Batch ID: 46722
Run Date: 04/30/2021 22:12
Data File: b30apr21a_2-2
Prep Batch: 46718
Prep Date: 29-APR-21

Client: APEX001

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		179	pg/L	2.10	10.0
40321-76-4	1,2,3,7,8-PeCDD		968	pg/L	3.70	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		971	pg/L	8.42	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		990	pg/L	7.92	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		995	pg/L	8.22	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		1020	pg/L	14.3	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1840	pg/L	21.2	100
51207-31-9	2,3,7,8-TCDF		186	pg/L	2.66	10.0
57117-41-6	1,2,3,7,8-PeCDF		1020	pg/L	5.82	50.0
57117-31-4	2,3,4,7,8-PeCDF		978	pg/L	4.98	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		1030	pg/L	7.78	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1030	pg/L	7.70	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		1000	pg/L	7.90	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		968	pg/L	11.0	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		948	pg/L	9.24	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		926	pg/L	14.2	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1880	pg/L	18.7	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1610	2000	pg/L	80.7	(20%-175%)
13C-1,2,3,7,8-PeCDD		1630	2000	pg/L	81.5	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1420	2000	pg/L	70.8	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1560	2000	pg/L	78.0	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1500	2000	pg/L	75.0	(22%-166%)
13C-OCDD		2900	4000	pg/L	72.5	(13%-199%)
13C-2,3,7,8-TCDF		1280	2000	pg/L	63.9	(22%-152%)
13C-1,2,3,7,8-PeCDF		1500	2000	pg/L	75.2	(21%-192%)
13C-2,3,4,7,8-PeCDF		1540	2000	pg/L	77.1	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1330	2000	pg/L	66.3	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1410	2000	pg/L	70.3	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1450	2000	pg/L	72.4	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1410	2000	pg/L	70.3	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1400	2000	pg/L	70.0	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1450	2000	pg/L	72.5	(20%-186%)
37Cl-2,3,7,8-TCDD		185	200	pg/L	92.7	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Thursday, July 1, 2021

Kyle Haggart
GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070

RE: A1E0987 - Former Automatic Vending Co. - BCSAmerica-1-02

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1E0987, which was received by the laboratory on 5/24/2021 at 5:00:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	2.9 degC	Cooler #2	4.3 degC
Cooler #3	3.8 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1(052421)	A1E0987-01	Water	05/24/21 09:30	05/24/21 17:00
SW-2(052421)	A1E0987-02	Water	05/24/21 09:45	05/24/21 17:00
DUP(052421)	A1E0987-03	Water	05/24/21 09:35	05/24/21 17:00
SW-1-TB(052421)	A1E0987-04	Water	05/24/21 00:00	05/24/21 17:00
SW-2-TB(052421)	A1E0987-05	Water	05/24/21 00:00	05/24/21 17:00
DUP-TB(052421)	A1E0987-06	Water	05/24/21 00:00	05/24/21 17:00

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01RE1)				Matrix: Water		Batch: 1050917		
Diesel	0.335	0.0971	0.194	mg/L	1	05/27/21 08:13	NWTPH-Dx	F-17
Oil	0.466	0.194	0.388	mg/L	1	05/27/21 08:13	NWTPH-Dx	F-24
Surrogate: o-Terphenyl (Surr)		Recovery: 116 %	Limits: 50-150 %	1	05/27/21 08:13	NWTPH-Dx		
SW-2(052421) (A1E0987-02)				Matrix: Water		Batch: 1050917		
Diesel	2.04	0.0952	0.190	mg/L	1	05/26/21 01:19	NWTPH-Dx	F-11
Oil	ND	0.190	0.381	mg/L	1	05/26/21 01:19	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 86 %	Limits: 50-150 %	1	05/26/21 01:19	NWTPH-Dx		
DUP(052421) (A1E0987-03RE1)				Matrix: Water		Batch: 1050917		
Diesel	0.340	0.104	0.208	mg/L	1	05/27/21 08:54	NWTPH-Dx	F-17
Oil	0.508	0.208	0.417	mg/L	1	05/27/21 08:54	NWTPH-Dx	F-24
Surrogate: o-Terphenyl (Surr)		Recovery: 114 %	Limits: 50-150 %	1	05/27/21 08:54	NWTPH-Dx		

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)		Matrix: Water			Batch: 1060007			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/01/21 15:12	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 94 %	Limits: 50-150 %	1	06/01/21 15:12	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	06/01/21 15:12	NWTPH-Gx (MS)		
SW-2(052421) (A1E0987-02)		Matrix: Water			Batch: 1060007			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/01/21 15:41	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 101 %	Limits: 50-150 %	1	06/01/21 15:41	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	06/01/21 15:41	NWTPH-Gx (MS)		
DUP(052421) (A1E0987-03)		Matrix: Water			Batch: 1060007			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/01/21 17:08	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 99 %	Limits: 50-150 %	1	06/01/21 17:08	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		110 %	50-150 %	1	06/01/21 17:08	NWTPH-Gx (MS)		

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)		Matrix: Water			Batch: 1060007			
Acetone	ND	20.0	20.0	ug/L	1	06/01/21 15:12	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:12	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Bromoform	ND	1.00	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/01/21 15:12	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/01/21 15:12	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/01/21 15:12	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:12	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Chloromethane	4.04	2.50	5.00	ug/L	1	06/01/21 15:12	EPA 8260D	J
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:12	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:12	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:12	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/01/21 15:12	EPA 8260D	
2-Hexanone	ND	10.0	10.0	ug/L	1	06/01/21 15:12	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/01/21 15:12	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	06/01/21 15:12	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)		Matrix: Water			Batch: 1060007			
Naphthalene	ND	1.00	2.00	ug/L	1	06/01/21 15:12	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:12	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/01/21 15:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/01/21 15:12	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/01/21 15:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:12	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 109 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>06/01/21 15:12</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/01/21 15:12</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/01/21 15:12</i>	<i>EPA 8260D</i>	
SW-2(052421) (A1E0987-02)		Matrix: Water			Batch: 1060007			
Acetone	ND	10.0	20.0	ug/L	1	06/01/21 15:41	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:41	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Bromoform	ND	1.00	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/01/21 15:41	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/01/21 15:41	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/01/21 15:41	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:41	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/01/21 15:41	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052421) (A1E0987-02)		Matrix: Water			Batch: 1060007			
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:41	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:41	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:41	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/01/21 15:41	EPA 8260D	
2-Hexanone	ND	10.0	10.0	ug/L	1	06/01/21 15:41	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/01/21 15:41	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	06/01/21 15:41	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	06/01/21 15:41	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/01/21 15:41	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/01/21 15:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/01/21 15:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/01/21 15:41	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/01/21 15:41	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/01/21 15:41	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 15:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 109 %		Limits: 80-120 %	1	06/01/21 15:41	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	06/01/21 15:41	EPA 8260D	
4-Bromofluorobenzene (Surr)		96 %		80-120 %	1	06/01/21 15:41	EPA 8260D	

DUP(052421) (A1E0987-03)		Matrix: Water			Batch: 1060007			
Acetone	21.4	10.0	20.0	ug/L	1	06/01/21 17:08	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/01/21 17:08	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Bromoform	ND	1.00	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/01/21 17:08	EPA 8260D	

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**GeoDesign, Inc.**
9450 SW Commerce Circle
Wilsonville, OR 97070Project: **Former Automatic Vending Co.**
Project Number: **BCSAmerica-1-02**
Project Manager: **Kyle Haggart****Report ID:**
A1E0987 - 07 01 21 2227**ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(052421) (A1E0987-03)				Matrix: Water		Batch: 1060007		
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/01/21 17:08	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/01/21 17:08	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 17:08	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/01/21 17:08	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 17:08	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 17:08	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/01/21 17:08	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/01/21 17:08	EPA 8260D	
2-Hexanone	ND	10.0	10.0	ug/L	1	06/01/21 17:08	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/01/21 17:08	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	06/01/21 17:08	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	06/01/21 17:08	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/01/21 17:08	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/01/21 17:08	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/01/21 17:08	EPA 8260D	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(052421) (A1E0987-03)		Matrix: Water			Batch: 1060007			
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/01/21 17:08	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/01/21 17:08	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>107 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>06/01/21 17:08</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>104 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/01/21 17:08</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/01/21 17:08</i>	<i>EPA 8260D</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)		Matrix: Water			Batch: 1060197			
Benzene	ND	0.0500	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
m,p-Xylene	ND	0.200	0.200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	Q-54a
o-Xylene	ND	0.100	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 22:52	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	97 %	Limits:	80-120 %	1	06/03/21 22:52	EPA 8260D SIM
Toluene-d8 (Surr)			99 %		80-120 %	1	06/03/21 22:52	EPA 8260D SIM
4-Bromofluorobenzene (Surr)			99 %		80-120 %	1	06/03/21 22:52	EPA 8260D SIM

SW-2(052421) (A1E0987-02)**Matrix: Water****Batch: 1060197**

Benzene	ND	0.0500	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
m,p-Xylene	ND	0.200	0.200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	Q-54a
o-Xylene	ND	0.100	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052421) (A1E0987-02)		Matrix: Water			Batch: 1060197			
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:38	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %	1	06/03/21 20:38	EPA 8260D SIM	
Toluene-d8 (Surr)		97 %		80-120 %	1	06/03/21 20:38	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		99 %		80-120 %	1	06/03/21 20:38	EPA 8260D SIM	

DUP(052421) (A1E0987-03)		Matrix: Water			Batch: 1060197			
Benzene	ND	0.0500	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
m,p-Xylene	ND	0.200	0.200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	Q-54a
o-Xylene	ND	0.100	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(052421) (A1E0987-03)		Matrix: Water				Batch: 1060197		
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,1,1,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 21:05	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>06/03/21 21:05</i>	<i>EPA 8260D SIM</i>	
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/03/21 21:05</i>	<i>EPA 8260D SIM</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/03/21 21:05</i>	<i>EPA 8260D SIM</i>	
SW-1-TB(052421) (A1E0987-04)		Matrix: Water				Batch: 1060197		V-01
Benzene	ND	0.0500	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
m,p-Xylene	ND	0.200	0.200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	Q-54a
o-Xylene	ND	0.100	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1-TB(052421) (A1E0987-04)		Matrix: Water			Batch: 1060197		V-01	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:17	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	97 %	Limits:	80-120 %	1	06/03/21 19:17	EPA 8260D SIM
Toluene-d8 (Surr)			96 %		80-120 %	1	06/03/21 19:17	EPA 8260D SIM
4-Bromofluorobenzene (Surr)			98 %		80-120 %	1	06/03/21 19:17	EPA 8260D SIM
SW-2-TB(052421) (A1E0987-05)		Matrix: Water			Batch: 1060197			
Benzene	ND	0.0500	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
m,p-Xylene	ND	0.200	0.200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	Q-54a
o-Xylene	ND	0.100	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062GeoDesign, Inc.
9450 SW Commerce Circle
Wilsonville, OR 97070Project: Former Automatic Vending Co.
Project Number: BCSAmerica-1-02
Project Manager: Kyle HaggartReport ID:
A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2-TB(052421) (A1E0987-05)		Matrix: Water			Batch: 1060197			
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 19:44	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>06/03/21 19:44</i>	<i>EPA 8260D SIM</i>	
<i>Toluene-d8 (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/03/21 19:44</i>	<i>EPA 8260D SIM</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>06/03/21 19:44</i>	<i>EPA 8260D SIM</i>	
DUP-TB(052421) (A1E0987-06)		Matrix: Water			Batch: 1060197			
Benzene	ND	0.0500	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
Toluene	ND	0.0500	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
m,p-Xylene	ND	0.200	0.200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
o-Xylene	ND	0.100	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,2,4-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
Chloroform	ND	0.0500	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	06/03/21 20:11	EPA 8260D SIM	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-TB(052421) (A1E0987-06)		Matrix: Water			Batch: 1060197			
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	06/03/21 20:11	EPA 8260D SIM	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	98 %	<i>Limits:</i>	80-120 %	1	06/03/21 20:11	EPA 8260D SIM
<i>Toluene-d8 (Surr)</i>			97 %		80-120 %	1	06/03/21 20:11	EPA 8260D SIM
<i>4-Bromofluorobenzene (Surr)</i>			98 %		80-120 %	1	06/03/21 20:11	EPA 8260D SIM

Apex Laboratories

Philip Nerenberg, Lab Director

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Wilsonville, OR 97070

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Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)		Matrix: Water			Batch: 1060206		C-07	
Aroclor 1016	ND	0.0213	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
Aroclor 1221	ND	0.0426	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
Aroclor 1232	ND	0.0213	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
Aroclor 1242	ND	0.0213	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
Aroclor 1248	ND	0.0213	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
Aroclor 1254	0.0741	0.0213	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
Aroclor 1260	ND	0.0213	0.0426	ug/L	1	06/04/21 18:45	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 67 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>06/04/21 18:45</i>	<i>EPA 8082A</i>	
SW-2(052421) (A1E0987-02)		Matrix: Water			Batch: 1060206		C-07	
Aroclor 1016	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
Aroclor 1221	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
Aroclor 1232	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
Aroclor 1242	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
Aroclor 1248	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
Aroclor 1254	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
Aroclor 1260	ND	0.0187	0.0374	ug/L	1	06/04/21 19:02	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 55 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>06/04/21 19:02</i>	<i>EPA 8082A</i>	
DUP(052421) (A1E0987-03)		Matrix: Water			Batch: 1060206		C-07	
Aroclor 1016	ND	0.0200	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
Aroclor 1221	ND	0.0400	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
Aroclor 1232	ND	0.0200	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
Aroclor 1242	ND	0.0200	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
Aroclor 1248	ND	0.0200	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
Aroclor 1254	ND	0.0200	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
Aroclor 1260	ND	0.0200	0.0400	ug/L	1	06/04/21 19:20	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl (Surr)</i>		<i>Recovery: 65 %</i>		<i>Limits: 40-135 %</i>	<i>1</i>	<i>06/04/21 19:20</i>	<i>EPA 8082A</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01RE1)		Matrix: Water			Batch: 1050961		R-04	
Acenaphthene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Acenaphthylene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Anthracene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Benz(a)anthracene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Benzo(a)pyrene	ND	0.142	0.283	ug/L	10	05/27/21 12:11	EPA 8270E	
Benzo(b)fluoranthene	ND	0.142	0.283	ug/L	10	05/27/21 12:11	EPA 8270E	
Benzo(k)fluoranthene	ND	0.142	0.283	ug/L	10	05/27/21 12:11	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Chrysene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Fluoranthene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Fluorene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
1-Methylnaphthalene	ND	0.189	0.377	ug/L	10	05/27/21 12:11	EPA 8270E	
2-Methylnaphthalene	ND	0.189	0.377	ug/L	10	05/27/21 12:11	EPA 8270E	
Naphthalene	ND	0.189	0.377	ug/L	10	05/27/21 12:11	EPA 8270E	
Phenanthrene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Pyrene	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Carbazole	ND	0.142	0.283	ug/L	10	05/27/21 12:11	EPA 8270E	
Dibenzofuran	ND	0.0943	0.189	ug/L	10	05/27/21 12:11	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	1.89	3.77	ug/L	10	05/27/21 12:11	EPA 8270E	
Butyl benzyl phthalate	ND	1.89	3.77	ug/L	10	05/27/21 12:11	EPA 8270E	
Diethylphthalate	ND	1.89	3.77	ug/L	10	05/27/21 12:11	EPA 8270E	
Dimethylphthalate	ND	1.89	3.77	ug/L	10	05/27/21 12:11	EPA 8270E	
Di-n-butylphthalate	ND	1.89	3.77	ug/L	10	05/27/21 12:11	EPA 8270E	
Di-n-octyl phthalate	ND	1.89	3.77	ug/L	10	05/27/21 12:11	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	70 %	<i>Limits:</i>	44-120 %	10	05/27/21 12:11	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			76 %		44-120 %	10	05/27/21 12:11	EPA 8270E
<i>Phenol-d6 (Surr)</i>			25 %		10-133 %	10	05/27/21 12:11	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			56 %		50-134 %	10	05/27/21 12:11	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			34 %		19-120 %	10	05/27/21 12:11	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			106 %		43-140 %	10	05/27/21 12:11	EPA 8270E

SW-2(052421) (A1E0987-02RE1)**Matrix: Water****Batch: 1050961****R-04**

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052421) (A1E0987-02RE1)				Matrix: Water		Batch: 1050961		R-04
Acenaphthene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Acenaphthylene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Anthracene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Benz(a)anthracene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Benzo(a)pyrene	ND	0.283	0.566	ug/L	20	05/27/21 12:46	EPA 8270E	
Benzo(b)fluoranthene	ND	0.283	0.566	ug/L	20	05/27/21 12:46	EPA 8270E	
Benzo(k)fluoranthene	ND	0.283	0.566	ug/L	20	05/27/21 12:46	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Chrysene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Fluoranthene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Fluorene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
1-Methylnaphthalene	ND	0.377	0.755	ug/L	20	05/27/21 12:46	EPA 8270E	
2-Methylnaphthalene	ND	0.377	0.755	ug/L	20	05/27/21 12:46	EPA 8270E	
Naphthalene	ND	0.377	0.755	ug/L	20	05/27/21 12:46	EPA 8270E	
Phenanthrene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Pyrene	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Carbazole	ND	0.283	0.566	ug/L	20	05/27/21 12:46	EPA 8270E	
Dibenzofuran	ND	0.189	0.377	ug/L	20	05/27/21 12:46	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	3.77	7.55	ug/L	20	05/27/21 12:46	EPA 8270E	
Butyl benzyl phthalate	ND	3.77	7.55	ug/L	20	05/27/21 12:46	EPA 8270E	
Diethylphthalate	ND	3.77	7.55	ug/L	20	05/27/21 12:46	EPA 8270E	
Dimethylphthalate	ND	3.77	7.55	ug/L	20	05/27/21 12:46	EPA 8270E	
Di-n-butylphthalate	ND	3.77	7.55	ug/L	20	05/27/21 12:46	EPA 8270E	
Di-n-octyl phthalate	ND	3.77	7.55	ug/L	20	05/27/21 12:46	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	89 %	<i>Limits:</i>	44-120 %	20	05/27/21 12:46	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			87 %		44-120 %	20	05/27/21 12:46	EPA 8270E
<i>Phenol-d6 (Surr)</i>			27 %		10-133 %	20	05/27/21 12:46	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			37 %		50-134 %	20	05/27/21 12:46	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			41 %		19-120 %	20	05/27/21 12:46	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			105 %		43-140 %	20	05/27/21 12:46	EPA 8270E

DUP(052421) (A1E0987-03RE1)**Matrix: Water****Batch: 1050961****R-04**

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP(052421) (A1E0987-03RE1)				Matrix: Water		Batch: 1050961		R-04
Acenaphthene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Acenaphthylene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Anthracene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Benz(a)anthracene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Benzo(a)pyrene	ND	0.286	0.571	ug/L	20	05/27/21 13:22	EPA 8270E	
Benzo(b)fluoranthene	ND	0.286	0.571	ug/L	20	05/27/21 13:22	EPA 8270E	
Benzo(k)fluoranthene	ND	0.286	0.571	ug/L	20	05/27/21 13:22	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Chrysene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Fluoranthene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Fluorene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
1-Methylnaphthalene	ND	0.381	0.762	ug/L	20	05/27/21 13:22	EPA 8270E	
2-Methylnaphthalene	ND	0.381	0.762	ug/L	20	05/27/21 13:22	EPA 8270E	
Naphthalene	ND	0.381	0.762	ug/L	20	05/27/21 13:22	EPA 8270E	
Phenanthrene	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Pyrene	0.194	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	J
Carbazole	ND	0.286	0.571	ug/L	20	05/27/21 13:22	EPA 8270E	
Dibenzofuran	ND	0.190	0.381	ug/L	20	05/27/21 13:22	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	3.81	7.62	ug/L	20	05/27/21 13:22	EPA 8270E	
Butyl benzyl phthalate	ND	3.81	7.62	ug/L	20	05/27/21 13:22	EPA 8270E	
Diethylphthalate	ND	3.81	7.62	ug/L	20	05/27/21 13:22	EPA 8270E	
Dimethylphthalate	ND	3.81	7.62	ug/L	20	05/27/21 13:22	EPA 8270E	
Di-n-butylphthalate	ND	3.81	7.62	ug/L	20	05/27/21 13:22	EPA 8270E	
Di-n-octyl phthalate	ND	3.81	7.62	ug/L	20	05/27/21 13:22	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery:</i>	78 %	<i>Limits:</i>	44-120 %	20	05/27/21 13:22	EPA 8270E
<i>2-Fluorobiphenyl (Surr)</i>			74 %		44-120 %	20	05/27/21 13:22	EPA 8270E
<i>Phenol-d6 (Surr)</i>			31 %		10-133 %	20	05/27/21 13:22	EPA 8270E
<i>p-Terphenyl-d14 (Surr)</i>			46 %		50-134 %	20	05/27/21 13:22	EPA 8270E
<i>2-Fluorophenol (Surr)</i>			36 %		19-120 %	20	05/27/21 13:22	EPA 8270E
<i>2,4,6-Tribromophenol (Surr)</i>			108 %		43-140 %	20	05/27/21 13:22	EPA 8270E

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227****ANALYTICAL SAMPLE RESULTS****Total Metals by EPA 200.8 (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01) Matrix: Water								
Batch: 1060183								
Chromium	4.14	0.500	1.00	ug/L	1	06/04/21 02:03	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	06/04/21 02:03	EPA 200.8	
Zinc	95.4	2.00	4.00	ug/L	1	06/04/21 02:03	EPA 200.8	
SW-2(052421) (A1E0987-02) Matrix: Water								
Batch: 1060183								
Arsenic	0.566	0.500	1.00	ug/L	1	06/04/21 02:07	EPA 200.8	J
Cadmium	0.130	0.100	0.200	ug/L	1	06/04/21 02:07	EPA 200.8	J
Chromium	2.24	0.500	1.00	ug/L	1	06/04/21 02:07	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	06/04/21 02:07	EPA 200.8	
Zinc	312	2.00	4.00	ug/L	1	06/04/21 02:07	EPA 200.8	
DUP(052421) (A1E0987-03) Matrix: Water								
Batch: 1060183								
Chromium	5.49	0.500	1.00	ug/L	1	06/04/21 02:12	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	06/04/21 02:12	EPA 200.8	
Zinc	104	2.00	4.00	ug/L	1	06/04/21 02:12	EPA 200.8	

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ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)				Matrix: Water				
Batch: 1060937								
Arsenic	0.404	0.0250	0.0500	ug/L	1	06/22/21 23:11	EPA 200.8-LL	
Cadmium	0.0557	0.0250	0.0500	ug/L	1	06/22/21 23:11	EPA 200.8-LL	
DUP(052421) (A1E0987-03)				Matrix: Water				
Batch: 1060937								
Arsenic	0.549	0.0250	0.0500	ug/L	1	06/22/21 23:18	EPA 200.8-LL	
Cadmium	0.0632	0.0250	0.0500	ug/L	1	06/22/21 23:18	EPA 200.8-LL	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052421) (A1E0987-01)		Matrix: Water						
Batch: 1051074								
Total Suspended Solids	27.0	5.00	5.00	mg/L	1	06/01/21 09:46	SM 2540 D	
SW-2(052421) (A1E0987-02)		Matrix: Water						
Batch: 1051074								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	06/01/21 09:46	SM 2540 D	
DUP(052421) (A1E0987-03)		Matrix: Water						
Batch: 1051074								
Total Suspended Solids	29.0	5.00	5.00	mg/L	1	06/01/21 09:46	SM 2540 D	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 1050917 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (1050917-BLK1)			Prepared: 05/25/21 13:00 Analyzed: 05/25/21 22:26										
NWTPH-Dx													
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---		
Oil	ND	0.182	0.364	mg/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 84 %		Limits: 50-150 %		Dilution: 1x							
LCS (1050917-BS1)			Prepared: 05/25/21 13:00 Analyzed: 05/25/21 22:48										
NWTPH-Dx													
Diesel	1.03	0.100	0.200	mg/L	1	1.25	---	82	59-115%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (1050917-BSD1)			Prepared: 05/25/21 13:00 Analyzed: 05/25/21 23:09										Q-19
NWTPH-Dx													
Diesel	1.01	0.100	0.200	mg/L	1	1.25	---	81	59-115%	2	30%		
Surr: o-Terphenyl (Surr)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x							

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Blank (1060007-BLK1)			Prepared: 06/01/21 08:00 Analyzed: 06/01/21 10:50									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						
LCS (1060007-BS2)			Prepared: 06/01/21 08:00 Analyzed: 06/01/21 10:21									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	0.467	0.0500	0.100	mg/L	1	0.500	---	93	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		100 %		50-150 %		"						
Duplicate (1060007-DUP1)			Prepared: 06/01/21 10:05 Analyzed: 06/01/21 19:34									
<u>QC Source Sample: Non-SDG (A1E1073-05)</u>												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 104 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		115 %		50-150 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Blank (1060007-BLK1)			Prepared: 06/01/21 08:00		Analyzed: 06/01/21 10:50							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Blank (1060007-BLK1)						Prepared: 06/01/21 08:00 Analyzed: 06/01/21 10:50						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	10.0	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 106 % Limits: 80-120 % Dilution: 1x												

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Blank (1060007-BLK1)			Prepared: 06/01/21 08:00		Analyzed: 06/01/21 10:50							
Surr: Toluene-d8 (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						
LCS (1060007-BS1)			Prepared: 06/01/21 08:00		Analyzed: 06/01/21 09:49							
EPA 8260D												
Acetone	33.1	10.0	20.0	ug/L	1	40.0	---	83	80-120%	---	---	
Acrylonitrile	19.1	1.00	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
Benzene	20.9	0.100	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Bromobenzene	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromodichloromethane	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromoform	14.1	1.00	1.00	ug/L	1	20.0	---	70	80-120%	---	---	Q-55
Bromomethane	18.5	5.00	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Butanone (MEK)	37.3	5.00	10.0	ug/L	1	40.0	---	93	80-120%	---	---	
n-Butylbenzene	22.9	0.500	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
sec-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
tert-Butylbenzene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Carbon disulfide	20.8	5.00	10.0	ug/L	1	20.0	---	104	80-120%	---	---	
Carbon tetrachloride	17.9	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Chlorobenzene	19.5	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Chloroethane	17.3	5.00	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
Chloroform	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	19.2	2.50	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
2-Chlorotoluene	20.7	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	21.5	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromochloromethane	18.0	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.5	5.00	5.00	ug/L	1	20.0	---	77	80-120%	---	---	Q-55
1,2-Dibromoethane (EDB)	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromomethane	19.7	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	18.6	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethane	20.3	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
LCS (1060007-BS1)			Prepared: 06/01/21 08:00		Analyzed: 06/01/21 09:49							
1,2-Dichloroethane (EDC)	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,2-Dichloroethene	20.1	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
trans-1,2-Dichloroethene	19.1	0.200	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	19.1	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,3-Dichloropropane	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
2,2-Dichloropropane	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloropropene	21.3	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,3-Dichloropropene	18.5	0.500	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Ethylbenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Hexachlorobutadiene	24.0	2.50	5.00	ug/L	1	20.0	---	120	80-120%	---	---	
2-Hexanone	30.2	10.0	10.0	ug/L	1	40.0	---	76	80-120%	---	---	Q-55
Isopropylbenzene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
4-Isopropyltoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	19.3	5.00	10.0	ug/L	1	20.0	---	97	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	34.4	5.00	10.0	ug/L	1	40.0	---	86	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Naphthalene	15.9	1.00	2.00	ug/L	1	20.0	---	80	80-120%	---	---	
n-Propylbenzene	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Styrene	18.0	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.0	0.200	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,2,2-Tetrachloroethane	17.7	0.250	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
Tetrachloroethene (PCE)	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Toluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	20.9	1.00	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.7	1.00	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,1-Trichloroethane	19.5	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,2-Trichloroethane	19.1	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
Trichlorofluoromethane	20.6	1.00	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2,3-Trichloropropane	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2,4-Trimethylbenzene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,3,5-Trimethylbenzene	19.3	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
LCS (1060007-BS1)			Prepared: 06/01/21 08:00		Analyzed: 06/01/21 09:49							
Vinyl chloride	18.7	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
m,p-Xylene	39.0	0.500	1.00	ug/L	1	40.0	---	98	80-120%	---	---	
o-Xylene	17.7	0.250	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

Duplicate (1060007-DUP1)

Prepared: 06/01/21 10:05 Analyzed: 06/01/21 19:34

QC Source Sample: Non-SDG (A1E1073-05)

Acetone	ND	10.0	20.0	ug/L	1	---	ND	---	---	---	30%
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Bromoform	ND	1.00	1.00	ug/L	1	---	ND	---	---	---	30%
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Duplicate (1060007-DUP1)			Prepared: 06/01/21 10:05		Analyzed: 06/01/21 19:34							
QC Source Sample: Non-SDG (A1E1073-05)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	10.0	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Page 30 of 54



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Duplicate (1060007-DUP1)			Prepared: 06/01/21 10:05 Analyzed: 06/01/21 19:34									
QC Source Sample: Non-SDG (A1E1073-05)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 111 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						
Matrix Spike (1060007-MS1)						Prepared: 06/01/21 10:05 Analyzed: 06/01/21 16:10						
QC Source Sample: SW-2(052421) (A1E0987-02)												
EPA 8260D												
Acetone	52.2	10.0	20.0	ug/L	1	40.0	ND	130	39-160%	---	---	
Acrylonitrile	23.5	1.00	2.00	ug/L	1	20.0	ND	117	63-135%	---	---	
Benzene	23.6	0.100	0.200	ug/L	1	20.0	ND	118	79-120%	---	---	
Bromobenzene	22.2	0.250	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
Bromochloromethane	23.6	0.500	1.00	ug/L	1	20.0	ND	118	78-123%	---	---	
Bromodichloromethane	22.4	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
Bromoform	16.3	1.00	1.00	ug/L	1	20.0	ND	81	66-130%	---	---	Q-54b
Bromomethane	21.9	5.00	5.00	ug/L	1	20.0	ND	110	53-141%	---	---	
2-Butanone (MEK)	47.0	5.00	10.0	ug/L	1	40.0	ND	118	56-143%	---	---	
n-Butylbenzene	24.8	0.500	1.00	ug/L	1	20.0	ND	124	75-128%	---	---	
sec-Butylbenzene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	77-126%	---	---	
tert-Butylbenzene	21.3	0.500	1.00	ug/L	1	20.0	ND	107	78-124%	---	---	
Carbon disulfide	23.8	5.00	10.0	ug/L	1	20.0	ND	119	64-133%	---	---	
Carbon tetrachloride	20.3	0.500	1.00	ug/L	1	20.0	ND	102	72-136%	---	---	
Chlorobenzene	22.0	0.250	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
Chloroethane	20.9	5.00	5.00	ug/L	1	20.0	ND	104	60-138%	---	---	
Chloroform	23.3	0.500	1.00	ug/L	1	20.0	ND	116	79-124%	---	---	
Chloromethane	21.8	2.50	5.00	ug/L	1	20.0	ND	109	50-139%	---	---	

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ANALYTICAL REPORT

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Matrix Spike (1060007-MS1)			Prepared: 06/01/21 10:05		Analyzed: 06/01/21 16:10							
QC Source Sample: SW-2(052421) (A1E0987-02)												
2-Chlorotoluene	23.9	0.500	1.00	ug/L	1	20.0	ND	119	79-122%	---	---	Q-54c
4-Chlorotoluene	24.4	0.500	1.00	ug/L	1	20.0	ND	122	78-122%	---	---	
Dibromochloromethane	20.9	0.500	1.00	ug/L	1	20.0	ND	104	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.1	5.00	5.00	ug/L	1	20.0	ND	96	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.2	0.250	0.500	ug/L	1	20.0	ND	111	77-121%	---	---	
Dibromomethane	22.4	0.500	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	
1,2-Dichlorobenzene	22.9	0.250	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
1,3-Dichlorobenzene	23.8	0.250	0.500	ug/L	1	20.0	ND	119	80-120%	---	---	
1,4-Dichlorobenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	79-120%	---	---	
Dichlorodifluoromethane	21.2	0.500	1.00	ug/L	1	20.0	ND	106	32-152%	---	---	
1,1-Dichloroethane	23.0	0.200	0.400	ug/L	1	20.0	ND	115	77-125%	---	---	Q-54d
1,2-Dichloroethane (EDC)	22.3	0.200	0.400	ug/L	1	20.0	ND	112	73-128%	---	---	
1,1-Dichloroethene	23.6	0.200	0.400	ug/L	1	20.0	ND	118	71-131%	---	---	
cis-1,2-Dichloroethene	22.4	0.200	0.400	ug/L	1	20.0	ND	112	78-123%	---	---	
trans-1,2-Dichloroethene	22.5	0.200	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	21.9	0.250	0.500	ug/L	1	20.0	ND	109	78-122%	---	---	
1,3-Dichloropropane	22.3	0.500	1.00	ug/L	1	20.0	ND	111	80-120%	---	---	
2,2-Dichloropropane	24.0	0.500	1.00	ug/L	1	20.0	ND	120	60-139%	---	---	
1,1-Dichloropropene	23.4	0.500	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
cis-1,3-Dichloropropene	17.2	0.500	1.00	ug/L	1	20.0	ND	86	75-124%	---	---	
trans-1,3-Dichloropropene	20.1	0.500	1.00	ug/L	1	20.0	ND	100	73-127%	---	---	Q-54d
Ethylbenzene	23.0	0.250	0.500	ug/L	1	20.0	ND	115	79-121%	---	---	
Hexachlorobutadiene	24.7	2.50	5.00	ug/L	1	20.0	ND	123	66-134%	---	---	
2-Hexanone	37.4	10.0	10.0	ug/L	1	40.0	ND	93	57-139%	---	---	
Isopropylbenzene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	72-131%	---	---	
4-Isopropyltoluene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	77-127%	---	---	
Methylene chloride	21.8	5.00	10.0	ug/L	1	20.0	ND	109	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	41.6	5.00	10.0	ug/L	1	40.0	ND	104	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	21.5	0.500	1.00	ug/L	1	20.0	ND	108	71-124%	---	---	
Naphthalene	18.2	1.00	2.00	ug/L	1	20.0	ND	91	61-128%	---	---	
n-Propylbenzene	24.3	0.250	0.500	ug/L	1	20.0	ND	122	76-126%	---	---	
Styrene	20.3	0.500	1.00	ug/L	1	20.0	ND	101	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.2	0.200	0.400	ug/L	1	20.0	ND	106	78-124%	---	---	

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Project: Former Automatic Vending Co.

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Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060007 - EPA 5030B						Water						
Matrix Spike (1060007-MS1)			Prepared: 06/01/21 10:05		Analyzed: 06/01/21 16:10							
QC Source Sample: SW-2(052421) (A1E0987-02)												
1,1,2,2-Tetrachloroethane	21.7	0.250	0.500	ug/L	1	20.0	ND	109	71-121%	---	---	
Tetrachloroethene (PCE)	21.8	0.200	0.400	ug/L	1	20.0	ND	109	74-129%	---	---	
Toluene	21.5	0.500	1.00	ug/L	1	20.0	ND	108	80-121%	---	---	
1,2,3-Trichlorobenzene	23.4	1.00	2.00	ug/L	1	20.0	ND	117	69-129%	---	---	
1,2,4-Trichlorobenzene	21.7	1.00	2.00	ug/L	1	20.0	ND	108	69-130%	---	---	
1,1,1-Trichloroethane	22.0	0.200	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
1,1,2-Trichloroethane	21.7	0.250	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
Trichloroethene (TCE)	22.0	0.200	0.400	ug/L	1	20.0	ND	110	79-123%	---	---	
Trichlorofluoromethane	23.6	1.00	2.00	ug/L	1	20.0	ND	118	65-141%	---	---	
1,2,3-Trichloropropane	23.3	0.500	1.00	ug/L	1	20.0	ND	116	73-122%	---	---	
1,2,4-Trimethylbenzene	21.7	0.500	1.00	ug/L	1	20.0	ND	109	76-124%	---	---	
1,3,5-Trimethylbenzene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	75-124%	---	---	
Vinyl chloride	20.7	0.200	0.400	ug/L	1	20.0	ND	103	58-137%	---	---	
m,p-Xylene	43.3	0.500	1.00	ug/L	1	40.0	ND	108	80-121%	---	---	
o-Xylene	19.7	0.250	0.500	ug/L	1	20.0	ND	99	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060197 - EPA 5030B						Water						
Blank (1060197-BLK1)			Prepared: 06/03/21 17:00 Analyzed: 06/03/21 18:50									
EPA 8260D SIM												
Benzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.100	0.100	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.100	0.100	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						

LCS (1060197-BS1)

Prepared: 06/03/21 17:00 Analyzed: 06/03/21 17:52

EPA 8260D SIM

Benzene	0.191	0.0500	0.100	ug/L	1	0.200	---	95	80-120%	---	---
Toluene	0.176	0.0500	0.100	ug/L	1	0.200	---	88	80-120%	---	---

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ANALYTICAL REPORT

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060197 - EPA 5030B						Water						
LCS (1060197-BS1)			Prepared: 06/03/21 17:00		Analyzed: 06/03/21 17:52							
Ethylbenzene	0.162	0.0500	0.100	ug/L	1	0.200	---	81	80-120%	---	---	
m,p-Xylene	0.314	0.200	0.200	ug/L	1	0.400	---	79	80-120%	---	---	Q-55
o-Xylene	0.158	0.100	0.100	ug/L	1	0.200	---	79	80-120%	---	---	Q-55
1,2,4-Trimethylbenzene	0.153	0.100	0.100	ug/L	1	0.200	---	76	80-120%	---	---	Q-55
1,3,5-Trimethylbenzene	0.152	0.100	0.100	ug/L	1	0.200	---	76	80-120%	---	---	Q-55
Chloroform	0.198	0.0500	0.100	ug/L	1	0.200	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	0.204	0.100	0.200	ug/L	1	0.200	---	102	80-120%	---	---	
1,2-Dibromoethane (EDB)	0.188	0.0100	0.0200	ug/L	1	0.200	---	94	80-120%	---	---	
1,1-Dichloroethane	0.198	0.0100	0.0200	ug/L	1	0.200	---	99	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.206	0.0100	0.0200	ug/L	1	0.200	---	103	80-120%	---	---	
1,1-Dichloroethene	0.185	0.0100	0.0200	ug/L	1	0.200	---	93	80-120%	---	---	
cis-1,2-Dichloroethene	0.186	0.0100	0.0200	ug/L	1	0.200	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	0.199	0.0100	0.0200	ug/L	1	0.200	---	99	80-120%	---	---	
1,2-Dichloropropane	0.187	0.0100	0.0200	ug/L	1	0.200	---	94	80-120%	---	---	
cis-1,3-Dichloropropene	0.181	0.0100	0.0200	ug/L	1	0.200	---	91	80-120%	---	---	
trans-1,3-Dichloropropene	0.188	0.0100	0.0200	ug/L	1	0.200	---	94	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	0.177	0.0100	0.0200	ug/L	1	0.200	---	88	80-120%	---	---	
1,1,2,2-Tetrachloroethane	0.205	0.0100	0.0200	ug/L	1	0.200	---	102	80-120%	---	---	
Tetrachloroethene (PCE)	0.191	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
Trichloroethene (TCE)	0.191	0.0100	0.0200	ug/L	1	0.200	---	96	80-120%	---	---	
1,2,3-Trichloropropane	0.211	0.0500	0.100	ug/L	1	0.200	---	105	80-120%	---	---	
Vinyl chloride	0.188	0.0100	0.0200	ug/L	1	0.200	---	94	80-120%	---	---	
1,1,2-Trichloroethane	0.238	0.0100	0.0200	ug/L	1	0.200	---	119	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

Duplicate (1060197-DUP1)

Prepared: 06/03/21 18:10 Analyzed: 06/03/21 21:59

QC Source Sample: Non-SDG (A1E1052-11)

Benzene	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
Toluene	0.0555	0.0500	0.100	ug/L	1	---	0.0563	---	---	1	30%	J
Ethylbenzene	0.0619	0.0500	0.100	ug/L	1	---	0.0618	---	---	0.08	30%	J
m,p-Xylene	ND	0.200	0.200	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.100	0.100	ug/L	1	---	ND	---	---	---	30%	

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060197 - EPA 5030B						Water						
Duplicate (1060197-DUP1)			Prepared: 06/03/21 18:10 Analyzed: 06/03/21 21:59									
QC Source Sample: Non-SDG (A1E1052-11)												
1,2,4-Trimethylbenzene	ND	0.100	0.100	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.100	0.100	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	0.102	0.0100	0.0200	ug/L	1	---	0.0964	---	---	6	30%	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	0.0645	0.0100	0.0200	ug/L	1	---	0.0655	---	---	2	30%	
Trichloroethene (TCE)	0.0395	0.0100	0.0200	ug/L	1	---	0.0394	---	---	0.08	30%	
1,2,3-Trichloropropane	ND	0.0500	0.100	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						

Matrix Spike (1060197-MS1)

Prepared: 06/03/21 18:10 Analyzed: 06/03/21 23:19

QC Source Sample: SW-1(052421) (A1E0987-01)**EPA 8260D SIM**

Benzene	0.209	0.0500	0.100	ug/L	1	0.200	ND	104	79-120%	---	---	
Toluene	0.214	0.0500	0.100	ug/L	1	0.200	ND	107	80-121%	---	---	
Ethylbenzene	0.171	0.0500	0.100	ug/L	1	0.200	ND	85	79-121%	---	---	
m,p-Xylene	0.349	0.200	0.200	ug/L	1	0.400	ND	87	80-121%	---	---	Q-54
o-Xylene	0.167	0.100	0.100	ug/L	1	0.200	ND	84	78-122%	---	---	Q-54a
1,2,4-Trimethylbenzene	0.164	0.100	0.100	ug/L	1	0.200	ND	82	76-124%	---	---	Q-54d

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060197 - EPA 5030B						Water						
Matrix Spike (1060197-MS1)			Prepared: 06/03/21 18:10		Analyzed: 06/03/21 23:19							
QC Source Sample: SW-1(052421) (A1E0987-01)												
1,3,5-Trimethylbenzene	0.164	0.100	0.100	ug/L	1	0.200	ND	82	75-124%	---	---	Q-54d
Chloroform	0.219	0.0500	0.100	ug/L	1	0.200	ND	110	79-124%	---	---	
1,2-Dibromo-3-chloropropane	0.220	0.100	0.200	ug/L	1	0.200	ND	110	62-128%	---	---	
1,2-Dibromoethane (EDB)	0.211	0.0100	0.0200	ug/L	1	0.200	ND	105	77-121%	---	---	
1,1-Dichloroethane	0.217	0.0100	0.0200	ug/L	1	0.200	ND	109	77-125%	---	---	
1,2-Dichloroethane (EDC)	0.223	0.0100	0.0200	ug/L	1	0.200	ND	111	73-128%	---	---	
1,1-Dichloroethene	0.240	0.0100	0.0200	ug/L	1	0.200	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	0.195	0.0100	0.0200	ug/L	1	0.200	ND	98	78-123%	---	---	
trans-1,2-Dichloroethene	0.221	0.0100	0.0200	ug/L	1	0.200	ND	110	75-124%	---	---	
1,2-Dichloropropane	0.207	0.0100	0.0200	ug/L	1	0.200	ND	104	78-122%	---	---	
cis-1,3-Dichloropropene	0.192	0.0100	0.0200	ug/L	1	0.200	ND	96	75-124%	---	---	
trans-1,3-Dichloropropene	0.197	0.0100	0.0200	ug/L	1	0.200	ND	98	73-127%	---	---	
Methyl tert-butyl ether (MTBE)	0.194	0.0100	0.0200	ug/L	1	0.200	ND	97	71-124%	---	---	
1,1,2,2-Tetrachloroethane	0.221	0.0100	0.0200	ug/L	1	0.200	ND	111	71-121%	---	---	
Tetrachloroethene (PCE)	0.212	0.0100	0.0200	ug/L	1	0.200	ND	106	74-129%	---	---	
Trichloroethene (TCE)	0.212	0.0100	0.0200	ug/L	1	0.200	ND	106	79-123%	---	---	
1,2,3-Trichloropropane	0.231	0.0500	0.100	ug/L	1	0.200	ND	116	73-122%	---	---	
Vinyl chloride	0.279	0.0100	0.0200	ug/L	1	0.200	ND	140	58-137%	---	---	Q-01
1,1,2-Trichloroethane	0.245	0.0100	0.0200	ug/L	1	0.200	ND	122	80-120%	---	---	Q-01
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060206 - EPA 3510C (Neutral pH)						Water						
Blank (1060206-BLK1)			Prepared: 06/04/21 07:12 Analyzed: 06/04/21 17:34									C-07
EPA 8082A												
Aroclor 1016	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 76 %		Limits: 40-135 %		Dilution: 1x						
LCS (1060206-BS1)			Prepared: 06/04/21 07:12 Analyzed: 06/04/21 17:52									C-07
EPA 8082A												
Aroclor 1016	1.48	0.0200	0.0400	ug/L	1	2.50	---	59	46-129%	---	---	
Aroclor 1260	1.61	0.0200	0.0400	ug/L	1	2.50	---	64	45-134%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 75 %		Limits: 40-135 %		Dilution: 1x						
LCS Dup (1060206-BSD1)			Prepared: 06/04/21 07:12 Analyzed: 06/04/21 18:09									C-07, Q-19
EPA 8082A												
Aroclor 1016	1.66	0.0200	0.0400	ug/L	1	2.50	---	66	46-129%	12	30%	
Aroclor 1260	1.72	0.0200	0.0400	ug/L	1	2.50	---	69	45-134%	7	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 83 %		Limits: 40-135 %		Dilution: 1x						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050961 - EPA 3510C (Acid Extraction)						Water						
Blank (1050961-BLK2)			Prepared: 05/26/21 09:57 Analyzed: 05/26/21 19:35									
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	0.0666	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	B
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 71 %		Limits: 44-120 %		Dilution: 1x						
2-Fluorobiphenyl (Surr)		60 %		44-120 %		"						
Phenol-d6 (Surr)		26 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		72 %		50-134 %		"						
2-Fluorophenol (Surr)		37 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		84 %		43-140 %		"						

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050961 - EPA 3510C (Acid Extraction)						Water						
LCS (1050961-BS2)			Prepared: 05/26/21 09:57 Analyzed: 05/26/21 20:11									
EPA 8270E												
Acenaphthene	3.23	0.0400	0.0800	ug/L	4	4.00	---	81	47-122%	---	---	B
Acenaphthylene	3.40	0.0400	0.0800	ug/L	4	4.00	---	85	41-130%	---	---	
Anthracene	3.49	0.0400	0.0800	ug/L	4	4.00	---	87	57-123%	---	---	
Benz(a)anthracene	3.55	0.0400	0.0800	ug/L	4	4.00	---	89	58-125%	---	---	
Benzo(a)pyrene	3.41	0.0600	0.120	ug/L	4	4.00	---	85	54-128%	---	---	
Benzo(b)fluoranthene	3.73	0.0600	0.120	ug/L	4	4.00	---	93	53-131%	---	---	
Benzo(k)fluoranthene	3.60	0.0600	0.120	ug/L	4	4.00	---	90	57-129%	---	---	
Benzo(g,h,i)perylene	3.46	0.0400	0.0800	ug/L	4	4.00	---	86	50-134%	---	---	
Chrysene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	59-123%	---	---	
Dibenz(a,h)anthracene	3.59	0.0400	0.0800	ug/L	4	4.00	---	90	51-134%	---	---	
Fluoranthene	3.72	0.0400	0.0800	ug/L	4	4.00	---	93	57-128%	---	---	
Fluorene	3.31	0.0400	0.0800	ug/L	4	4.00	---	83	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.37	0.0400	0.0800	ug/L	4	4.00	---	84	52-134%	---	---	
1-Methylnaphthalene	3.15	0.0800	0.160	ug/L	4	4.00	---	79	41-120%	---	---	
2-Methylnaphthalene	3.15	0.0800	0.160	ug/L	4	4.00	---	79	40-121%	---	---	
Naphthalene	2.82	0.0800	0.160	ug/L	4	4.00	---	71	40-121%	---	---	
Phenanthrene	3.30	0.0400	0.0800	ug/L	4	4.00	---	82	59-120%	---	---	
Pyrene	3.71	0.0400	0.0800	ug/L	4	4.00	---	93	57-126%	---	---	
Carbazole	4.01	0.0600	0.120	ug/L	4	4.00	---	100	60-122%	---	---	
Dibenzofuran	3.29	0.0400	0.0800	ug/L	4	4.00	---	82	53-120%	---	---	
Bis(2-ethylhexyl)phthalate	3.88	0.800	1.60	ug/L	4	4.00	---	97	55-135%	---	---	
Butyl benzyl phthalate	3.88	0.800	1.60	ug/L	4	4.00	---	97	53-134%	---	---	
Diethylphthalate	3.55	0.800	1.60	ug/L	4	4.00	---	89	56-125%	---	---	
Dimethylphthalate	3.50	0.800	1.60	ug/L	4	4.00	---	87	45-127%	---	---	
Di-n-butylphthalate	3.83	0.800	1.60	ug/L	4	4.00	---	96	59-127%	---	---	
Di-n-octyl phthalate	3.98	0.800	1.60	ug/L	4	4.00	---	99	51-140%	---	---	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 79 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		74 %		44-120 %		"						
Phenol-d6 (Surr)		27 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		79 %		50-134 %		"						
2-Fluorophenol (Surr)		39 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		84 %		43-140 %		"						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1050961 - EPA 3510C (Acid Extraction)						Water						
LCS Dup (1050961-BSD2)			Prepared: 05/26/21 09:57		Analyzed: 05/26/21 20:47		Q-19					
EPA 8270E												
Acenaphthene	3.24	0.0400	0.0800	ug/L	4	4.00	---	81	47-122%	0.3	30%	B
Acenaphthylene	3.38	0.0400	0.0800	ug/L	4	4.00	---	85	41-130%	0.6	30%	
Anthracene	3.45	0.0400	0.0800	ug/L	4	4.00	---	86	57-123%	1	30%	
Benz(a)anthracene	3.52	0.0400	0.0800	ug/L	4	4.00	---	88	58-125%	0.8	30%	
Benzo(a)pyrene	3.32	0.0600	0.120	ug/L	4	4.00	---	83	54-128%	3	30%	
Benzo(b)fluoranthene	3.60	0.0600	0.120	ug/L	4	4.00	---	90	53-131%	3	30%	
Benzo(k)fluoranthene	3.58	0.0600	0.120	ug/L	4	4.00	---	89	57-129%	0.5	30%	
Benzo(g,h,i)perylene	3.45	0.0400	0.0800	ug/L	4	4.00	---	86	50-134%	0.1	30%	
Chrysene	3.42	0.0400	0.0800	ug/L	4	4.00	---	85	59-123%	0.7	30%	
Dibenz(a,h)anthracene	3.65	0.0400	0.0800	ug/L	4	4.00	---	91	51-134%	2	30%	
Fluoranthene	3.58	0.0400	0.0800	ug/L	4	4.00	---	90	57-128%	4	30%	
Fluorene	3.39	0.0400	0.0800	ug/L	4	4.00	---	85	52-124%	3	30%	
Indeno(1,2,3-cd)pyrene	3.40	0.0400	0.0800	ug/L	4	4.00	---	85	52-134%	0.7	30%	
1-Methylnaphthalene	3.20	0.0800	0.160	ug/L	4	4.00	---	80	41-120%	2	30%	
2-Methylnaphthalene	3.17	0.0800	0.160	ug/L	4	4.00	---	79	40-121%	0.6	30%	
Naphthalene	2.84	0.0800	0.160	ug/L	4	4.00	---	71	40-121%	0.7	30%	
Phenanthrene	3.23	0.0400	0.0800	ug/L	4	4.00	---	81	59-120%	2	30%	
Pyrene	3.59	0.0400	0.0800	ug/L	4	4.00	---	90	57-126%	3	30%	
Carbazole	3.95	0.0600	0.120	ug/L	4	4.00	---	99	60-122%	1	30%	
Dibenzofuran	3.33	0.0400	0.0800	ug/L	4	4.00	---	83	53-120%	1	30%	
Bis(2-ethylhexyl)phthalate	3.98	0.800	1.60	ug/L	4	4.00	---	99	55-135%	3	30%	
Butyl benzyl phthalate	3.83	0.800	1.60	ug/L	4	4.00	---	96	53-134%	1	30%	
Diethylphthalate	3.60	0.800	1.60	ug/L	4	4.00	---	90	56-125%	1	30%	
Dimethylphthalate	3.50	0.800	1.60	ug/L	4	4.00	---	87	45-127%	0.001	30%	
Di-n-butylphthalate	3.82	0.800	1.60	ug/L	4	4.00	---	96	59-127%	0.2	30%	
Di-n-octyl phthalate	3.89	0.800	1.60	ug/L	4	4.00	---	97	51-140%	2	30%	
Surr: Nitrobenzene-d5 (Surr)		Recovery: 84 %		Limits: 44-120 %		Dilution: 4x						
2-Fluorobiphenyl (Surr)		77 %		44-120 %		"						
Phenol-d6 (Surr)		32 %		10-133 %		"						
p-Terphenyl-d14 (Surr)		81 %		50-134 %		"						
2-Fluorophenol (Surr)		45 %		19-120 %		"						
2,4,6-Tribromophenol (Surr)		82 %		43-140 %		"						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060183 - EPA 3015A						Water						
Blank (1060183-BLK1)			Prepared: 06/03/21 14:38 Analyzed: 06/04/21 00:06									
EPA 200.8												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
LCS (1060183-BS1)			Prepared: 06/03/21 14:38 Analyzed: 06/04/21 00:11									
EPA 200.8												
Arsenic	55.9	0.500	1.00	ug/L	1	55.6	---	101	85-115%	---	---	
Cadmium	56.3	0.100	0.200	ug/L	1	55.6	---	101	85-115%	---	---	
Chromium	59.6	0.500	1.00	ug/L	1	55.6	---	107	85-115%	---	---	
Mercury	1.07	0.0400	0.0800	ug/L	1	1.11	---	97	85-115%	---	---	
Zinc	58.9	2.00	4.00	ug/L	1	55.6	---	106	85-115%	---	---	
Duplicate (1060183-DUP1)			Prepared: 06/03/21 14:38 Analyzed: 06/04/21 00:45									
QC Source Sample: Non-SDG (A1E0954-03)												
Arsenic	1.68	0.500	1.00	ug/L	1	---	1.70	---	---	1	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	6.22	0.500	1.00	ug/L	1	---	5.92	---	---	5	20%	
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Zinc	32.7	2.00	4.00	ug/L	1	---	31.6	---	---	4	20%	
Matrix Spike (1060183-MS1)			Prepared: 06/03/21 14:38 Analyzed: 06/04/21 00:50									
QC Source Sample: Non-SDG (A1E0954-03)												
EPA 200.8												
Arsenic	58.4	0.500	1.00	ug/L	1	55.6	1.70	102	70-130%	---	---	
Cadmium	56.5	0.100	0.200	ug/L	1	55.6	ND	102	70-130%	---	---	
Chromium	65.1	0.500	1.00	ug/L	1	55.6	5.92	107	70-130%	---	---	
Mercury	1.06	0.0400	0.0800	ug/L	1	1.11	ND	96	70-130%	---	---	
Zinc	92.3	2.00	4.00	ug/L	1	55.6	31.6	109	70-130%	---	---	
Matrix Spike (1060183-MS2)			Prepared: 06/03/21 14:38 Analyzed: 06/04/21 02:17									

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060183 - EPA 3015A						Water						
Matrix Spike (1060183-MS2)			Prepared: 06/03/21 14:38 Analyzed: 06/04/21 02:17									
QC Source Sample: DUP(052421) (A1E0987-03)												
Arsenic	55.8	0.500	1.00	ug/L	1	55.6	ND	101	70-130%	---	---	
Cadmium	54.3	0.100	0.200	ug/L	1	55.6	ND	98	70-130%	---	---	
Chromium	63.1	0.500	1.00	ug/L	1	55.6	5.49	104	70-130%	---	---	
Mercury	1.10	0.0400	0.0800	ug/L	1	1.11	ND	99	70-130%	---	---	
Zinc	159	2.00	4.00	ug/L	1	55.6	104	98	70-130%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1060937 - EPA 3015A						Water						
Blank (1060937-BLK1)			Prepared: 06/22/21 12:27 Analyzed: 06/22/21 21:06									
EPA 200.8-LL												
Arsenic	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.0250	0.0500	ug/L	1	---	---	---	---	---	---	
LCS (1060937-BS1)			Prepared: 06/22/21 12:27 Analyzed: 06/22/21 21:27									
EPA 200.8-LL												
Arsenic	5.40	0.0250	0.0500	ug/L	1	5.56	---	97	85-115%	---	---	
Cadmium	5.25	0.0250	0.0500	ug/L	1	5.56	---	95	85-115%	---	---	
Duplicate (1060937-DUP1)			Prepared: 06/22/21 12:27 Analyzed: 06/22/21 21:41									
QC Source Sample: Non-SDG (A1E0630-01)												
Arsenic	16.3	0.0250	0.0500	ug/L	1	---	16.3	---	---	0.03	20%	
Cadmium	0.150	0.0250	0.0500	ug/L	1	---	0.143	---	---	5	20%	
Matrix Spike (1060937-MS1)			Prepared: 06/22/21 12:27 Analyzed: 06/22/21 21:47									
QC Source Sample: Non-SDG (A1E0630-01)												
EPA 200.8-LL												
Arsenic	21.6	0.0250	0.0500	ug/L	1	5.56	16.3	96	70-130%	---	---	
Cadmium	5.41	0.0250	0.0500	ug/L	1	5.56	0.143	95	70-130%	---	---	
Matrix Spike (1060937-MS2)			Prepared: 06/22/21 17:28 Analyzed: 06/22/21 23:25									
QC Source Sample: DUP(052421) (A1E0987-03)												
Arsenic	6.09	0.0250	0.0500	ug/L	1	5.56	0.549	100	70-130%	---	---	
Cadmium	5.34	0.0250	0.0500	ug/L	1	5.56	0.0632	95	70-130%	---	---	

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

QUALITY CONTROL (QC) SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1051074 - Total Suspended Solids						Water						
Blank (1051074-BLK1)			Prepared: 05/28/21 09:37 Analyzed: 06/01/21 09:46									
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Duplicate (1051074-DUP1)			Prepared: 05/28/21 09:37 Analyzed: 06/01/21 09:46									
QC Source Sample: Non-SDG (A1E0950-01RE1)												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	ND	---	---	---	10%	
Duplicate (1051074-DUP2)			Prepared: 05/28/21 09:37 Analyzed: 06/01/21 09:46									
QC Source Sample: Non-SDG (A1E1021-01)												
Total Suspended Solids	5.00	5.00	5.00	mg/L	1	---	ND	---	---		10%	Q-05
Reference (1051074-SRM1)			Prepared: 05/28/21 09:37 Analyzed: 06/01/21 09:46									
SM 2540 D												
Total Suspended Solids	924			mg/L	1	951		97	87-116%	---	---	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1050917							
A1E0987-01RE1	Water	NWTPH-Dx	05/24/21 09:30	05/25/21 13:32	1030mL/5mL	1000mL/5mL	0.97
A1E0987-02	Water	NWTPH-Dx	05/24/21 09:45	05/25/21 13:32	1050mL/5mL	1000mL/5mL	0.95
A1E0987-03RE1	Water	NWTPH-Dx	05/24/21 09:35	05/25/21 13:32	960mL/5mL	1000mL/5mL	1.04

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1060007							
A1E0987-01	Water	NWTPH-Gx (MS)	05/24/21 09:30	06/01/21 10:05	5mL/5mL	5mL/5mL	1.00
A1E0987-02	Water	NWTPH-Gx (MS)	05/24/21 09:45	06/01/21 10:05	5mL/5mL	5mL/5mL	1.00
A1E0987-03	Water	NWTPH-Gx (MS)	05/24/21 09:35	06/01/21 10:05	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1060007							
A1E0987-01	Water	EPA 8260D	05/24/21 09:30	06/01/21 10:05	5mL/5mL	5mL/5mL	1.00
A1E0987-02	Water	EPA 8260D	05/24/21 09:45	06/01/21 10:05	5mL/5mL	5mL/5mL	1.00
A1E0987-03	Water	EPA 8260D	05/24/21 09:35	06/01/21 10:05	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1060197							
A1E0987-01	Water	EPA 8260D SIM	05/24/21 09:30	06/03/21 18:10	5mL/5mL	5mL/5mL	1.00
A1E0987-02	Water	EPA 8260D SIM	05/24/21 09:45	06/03/21 18:10	5mL/5mL	5mL/5mL	1.00
A1E0987-03	Water	EPA 8260D SIM	05/24/21 09:35	06/03/21 18:10	5mL/5mL	5mL/5mL	1.00
A1E0987-04	Water	EPA 8260D SIM	05/24/21 00:00	06/03/21 18:10	5mL/5mL	5mL/5mL	1.00
A1E0987-05	Water	EPA 8260D SIM	05/24/21 00:00	06/03/21 18:10	5mL/5mL	5mL/5mL	1.00
A1E0987-06	Water	EPA 8260D SIM	05/24/21 00:00	06/03/21 18:10	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls by EPA 8082A

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Philip Nerenberg, Lab Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**Project Number: **BCSAmerica-1-02**Project Manager: **Kyle Haggart****Report ID:****A1E0987 - 07 01 21 2227****SAMPLE PREPARATION INFORMATION****Polychlorinated Biphenyls by EPA 8082A****Prep: EPA 3510C (Neutral pH)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1060206							
A1E0987-01	Water	EPA 8082A	05/24/21 09:30	06/04/21 07:12	940mL/2mL	1000mL/2mL	1.06
A1E0987-02	Water	EPA 8082A	05/24/21 09:45	06/04/21 07:12	1070mL/2mL	1000mL/2mL	0.94
A1E0987-03	Water	EPA 8082A	05/24/21 09:35	06/04/21 07:12	1000mL/2mL	1000mL/2mL	1.00

Semivolatile Organic Compounds by EPA 8270E**Prep: EPA 3510C (Acid Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1050961							
A1E0987-01RE1	Water	EPA 8270E	05/24/21 09:30	05/26/21 14:16	1060mL/1mL	1000mL/1mL	0.94
A1E0987-02RE1	Water	EPA 8270E	05/24/21 09:45	05/26/21 14:16	1060mL/1mL	1000mL/1mL	0.94
A1E0987-03RE1	Water	EPA 8270E	05/24/21 09:35	05/26/21 14:16	1050mL/1mL	1000mL/1mL	0.95

Total Metals by EPA 200.8 (ICPMS)**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1060183							
A1E0987-01	Water	EPA 200.8	05/24/21 09:30	06/03/21 14:38	45mL/50mL	45mL/50mL	1.00
A1E0987-02	Water	EPA 200.8	05/24/21 09:45	06/03/21 14:38	45mL/50mL	45mL/50mL	1.00
A1E0987-03	Water	EPA 200.8	05/24/21 09:35	06/03/21 14:38	45mL/50mL	45mL/50mL	1.00

Total Metals by EPA 200.8 (ICPMS) - Low Level**Prep: EPA 3015A**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1060937							
A1E0987-01	Water	EPA 200.8-LL	05/24/21 09:30	06/22/21 17:28	45mL/50mL	45mL/50mL	1.00
A1E0987-03	Water	EPA 200.8-LL	05/24/21 09:35	06/22/21 17:28	45mL/50mL	45mL/50mL	1.00

Solid and Moisture Determinations**Prep: Total Suspended Solids**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1051074							
A1E0987-01	Water	SM 2540 D	05/24/21 09:30	05/28/21 09:37			NA

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

SAMPLE PREPARATION INFORMATION

Solid and Moisture Determinations

Prep: Total Suspended Solids

					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1E0987-02	Water	SM 2540 D	05/24/21 09:45	05/28/21 09:37			NA
A1E0987-03	Water	SM 2540 D	05/24/21 09:35	05/28/21 09:37			NA

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- F-17** No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- F-24** The chromatographic pattern does not resemble the fuel standard used for quantitation. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +/-1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -10%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -4%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-06** Surrogate recovery is outside of established control limits.
- V-01** Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

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Philip Nerenberg, Lab Director

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Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

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Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **Former Automatic Vending Co.**

Project Number: **BCSAmerica-1-02**

Project Manager: **Kyle Haggart**

Report ID:

A1E0987 - 07 01 21 2227

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street

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503-718-2323

ORELAP ID: OR100062

GeoDesign, Inc.

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: Former Automatic Vending Co.

Project Number: BCSAmerica-1-02

Project Manager: Kyle Haggart

Report ID:

A1E0987 - 07 01 21 2227

APEX LABS COOLER RECEIPT FORM

Client: GeoDesign Element WO#: A1 E0987Project/Project #: BCSAmerica-1-02

Delivery Info:

Date/time received: 5/24/21 @ 1700 By: SCDelivered by: Apex ☐ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 5/24/21 @ 1715 By: SCChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.9</u>	<u>4.3</u>	<u>3.8</u>				
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>	<u>Y</u>				
Ice type: (Gel/Real/Other)	<u>real/gel</u>	<u>real/gel</u>	<u>real/gel</u>				
Condition:	<u>good</u>	<u>good</u>	<u>good</u>				

Cooler out of temp? (Y/N) ☒ Possible reason why: _____Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 5/24/21 @ 1158 By: ALCAll samples intact? Yes ☒ No ☒ Comments: SW-2 18 UP Ambers lid received cracked & replaced in lab.Bottle labels/COCs agree? Yes ☒ No ☒ Comments: TB #2743, IDs on TB's reads SW-1(052421), TB-2(052421), DUP(052421). SW DUP T on 18 UP AmbersCOC/container discrepancies form initiated? Yes ☐ No ☒ Comments: anachron reads 955.Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☒ No ☐ NA ☐Comments: SW-1-TB 052421 42 #8.Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information:

Labeled by: AKKWitness: SCCooler Inspected by: SC 05/24/21

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Page 54 of 54

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-60155-1
Client Project/Site: A1E0987

For:

Apex Laboratories LLC
6700 SW Sandburg St.
Tigard, Oregon 97223

Attn: Philip Nerenberg



Authorized for release by:
6/10/2021 9:00:02 AM

Lori Thompson, Project Manager I
(714)895-5494
Lori.Thompson@eurofinset.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Job ID: 570-60155-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative 570-60155-1

Comments

No additional comments.

Receipt

The samples were received on 5/26/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method Organotin: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-153942. LCS/LCSD were performed to meet QC requirements.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Client Sample ID: SW-1(052421)

Lab Sample ID: 570-60155-1

☐ No Detections.

Client Sample ID: SW-2(052421)

Lab Sample ID: 570-60155-2

☐ No Detections.

Client Sample ID: DUP(052421)

Lab Sample ID: 570-60155-3

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC



Client Sample Results

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Client Sample ID: SW-1(052421)

Date Collected: 05/24/21 09:30

Date Received: 05/26/21 10:30

Lab Sample ID: 570-60155-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.3	2.1	ng/L		05/28/21 18:45	06/03/21 17:24	1
Tributyltin	ND		3.3	1.5	ng/L		05/28/21 18:45	06/03/21 17:24	1
Dibutyltin	ND		3.3	1.9	ng/L		05/28/21 18:45	06/03/21 17:24	1
Monobutyltin	ND		3.3	2.6	ng/L		05/28/21 18:45	06/03/21 17:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	53		10 - 120	05/28/21 18:45	06/03/21 17:24	1

Client Sample ID: SW-2(052421)

Date Collected: 05/24/21 09:45

Date Received: 05/26/21 10:30

Lab Sample ID: 570-60155-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		2.9	1.8	ng/L		05/28/21 18:45	06/03/21 17:42	1
Tributyltin	ND		2.9	1.3	ng/L		05/28/21 18:45	06/03/21 17:42	1
Dibutyltin	ND		2.9	1.7	ng/L		05/28/21 18:45	06/03/21 17:42	1
Monobutyltin	ND		2.9	2.3	ng/L		05/28/21 18:45	06/03/21 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	64		10 - 120	05/28/21 18:45	06/03/21 17:42	1

Client Sample ID: DUP(052421)

Date Collected: 05/24/21 09:35

Date Received: 05/26/21 10:30

Lab Sample ID: 570-60155-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		2.9	1.9	ng/L		05/28/21 18:45	06/03/21 17:59	1
Tributyltin	ND		2.9	1.3	ng/L		05/28/21 18:45	06/03/21 17:59	1
Dibutyltin	ND		2.9	1.7	ng/L		05/28/21 18:45	06/03/21 17:59	1
Monobutyltin	ND		2.9	2.3	ng/L		05/28/21 18:45	06/03/21 17:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	45		10 - 120	05/28/21 18:45	06/03/21 17:59	1

Surrogate Summary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPTT (10-120)
570-60155-1	SW-1(052421)	53
570-60155-2	SW-2(052421)	64
570-60155-3	DUP(052421)	45
LCS 570-153942/2-A	Lab Control Sample	60
LCSD 570-153942/3-A	Lab Control Sample Dup	60
MB 570-153942/1-A	Method Blank	31

Surrogate Legend

TPTT = Triphenyltin

QC Sample Results

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Method: Organotins SIM - Organotins (GC/MS SIM)

Lab Sample ID: MB 570-153942/1-A

Matrix: Water

Analysis Batch: 154804

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 153942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrabutyltin	ND		3.0	1.9	ng/L		05/28/21 18:45	06/03/21 16:31	1
Tributyltin	ND		3.0	1.4	ng/L		05/28/21 18:45	06/03/21 16:31	1
Dibutyltin	ND		3.0	1.8	ng/L		05/28/21 18:45	06/03/21 16:31	1
Monobutyltin	ND		3.0	2.4	ng/L		05/28/21 18:45	06/03/21 16:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tripentyltin	31		10 - 120	05/28/21 18:45	06/03/21 16:31	1

Lab Sample ID: LCS 570-153942/2-A

Matrix: Water

Analysis Batch: 155808

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 153942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrabutyltin	200	187.8		ng/L		94	21 - 124
Tributyltin	200	116.1		ng/L		58	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tripentyltin	60		10 - 120

Lab Sample ID: LCSD 570-153942/3-A

Matrix: Water

Analysis Batch: 155808

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 153942

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrabutyltin	200	175.5		ng/L		88	21 - 124	7	30
Tributyltin	200	121.4		ng/L		61	10 - 120	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tripentyltin	60		10 - 120

QC Association Summary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

GC/MS Semi VOA

Prep Batch: 153942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-60155-1	SW-1(052421)	Total/NA	Water	Organotin	
570-60155-2	SW-2(052421)	Total/NA	Water	Organotin	
570-60155-3	DUP(052421)	Total/NA	Water	Organotin	
MB 570-153942/1-A	Method Blank	Total/NA	Water	Organotin	
LCS 570-153942/2-A	Lab Control Sample	Total/NA	Water	Organotin	
LCSD 570-153942/3-A	Lab Control Sample Dup	Total/NA	Water	Organotin	

Analysis Batch: 154804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-60155-1	SW-1(052421)	Total/NA	Water	Organotins SIM	153942
570-60155-2	SW-2(052421)	Total/NA	Water	Organotins SIM	153942
570-60155-3	DUP(052421)	Total/NA	Water	Organotins SIM	153942
MB 570-153942/1-A	Method Blank	Total/NA	Water	Organotins SIM	153942

Analysis Batch: 155808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-153942/2-A	Lab Control Sample	Total/NA	Water	Organotins SIM	153942
LCSD 570-153942/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins SIM	153942

Lab Chronicle

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Client Sample ID: SW-1(052421)

Lab Sample ID: 570-60155-1

Date Collected: 05/24/21 09:30

Matrix: Water

Date Received: 05/26/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			917.2 mL	1 mL	153942	05/28/21 18:45	USUL	ECL 1
Total/NA	Analysis	Organotins SIM		1			154804	06/03/21 17:24	ULLI	ECL 1
Instrument ID: GCMSY										

Client Sample ID: SW-2(052421)

Lab Sample ID: 570-60155-2

Date Collected: 05/24/21 09:45

Matrix: Water

Date Received: 05/26/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1049.8 mL	1 mL	153942	05/28/21 18:45	USUL	ECL 1
Total/NA	Analysis	Organotins SIM		1			154804	06/03/21 17:42	ULLI	ECL 1
Instrument ID: GCMSY										

Client Sample ID: DUP(052421)

Lab Sample ID: 570-60155-3

Date Collected: 05/24/21 09:35

Matrix: Water

Date Received: 05/26/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Organotin			1042.4 mL	1 mL	153942	05/28/21 18:45	USUL	ECL 1
Total/NA	Analysis	Organotins SIM		1			154804	06/03/21 17:59	ULLI	ECL 1
Instrument ID: GCMSY										

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Laboratory: Eurofins Calscience LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	CA300001	01-30-22
Washington	State	C916-18	10-11-21

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Method	Method Description	Protocol	Laboratory
Organotins SIM	Organotins (GC/MS SIM)	Lab SOP	ECL 1
Organotin	Extraction (Organotins)	WRC	ECL 1

Protocol References:

Lab SOP = Laboratory Standard Operating Procedure

WRC = WRC Notebook 11431-39, ICI America's Western Research Center May, 1989.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Apex Laboratories LLC
Project/Site: A1E0987

Job ID: 570-60155-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-60155-1	SW-1(052421)	Water	05/24/21 09:30	05/26/21 10:30	
570-60155-2	SW-2(052421)	Water	05/24/21 09:45	05/26/21 10:30	
570-60155-3	DUP(052421)	Water	05/24/21 09:35	05/26/21 10:30	

SUBCONTRACT ORDER

Apex Laboratories

CAB STSM A1E0987

SENDING LABORATORY:

Apex Laboratories
 6700 S.W. Sandburg Street
 Tigard, OR 97223
 Phone: (503) 718-2323
 Fax: (503) 336-0745
 Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Eurofins_CalScience
 7440 Lincoln Way
 Garden Grove, CA 92841-1427
 Phone : (714) 895-5494
 Fax: (714) 894-7501

Sample Name: SW-1(052421)

Water

Sampled: 05/24/21 09:30

(A1E0987-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	06/07/21 17:00	06/07/21 09:30	
Containers Supplied:			
(P) 1 L Amber Glass - Non Preserved			
(Q) 1 L Amber Glass - Non Preserved			

1/8 UP Amber lids received cracked and replaced

Sample Name: SW-2(052421)

Water

Sampled: 05/24/21 09:45

(A1E0987-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	06/07/21 17:00	06/07/21 09:45	
Containers Supplied:			
(P) 1 L Amber Glass - Non Preserved			
(Q) 1 L Amber Glass - Non Preserved			

T on 1/8 UP Ambers reads 955.

Sample Name: DUP(052421)

Water

Sampled: 05/24/21 09:35

(A1E0987-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (4) (Sub)	06/07/21 17:00	06/07/21 09:35	
Containers Supplied:			
(P) 1 L Amber Glass - Non Preserved			
(Q) 1 L Amber Glass - Non Preserved			

Standard TAT



570-60155 COC

Released By

Date

Received By

Date

Released By

Date

Received By

Date

Fed Ex (Shipper)

Fed Ex (Shipper)

Login Sample Receipt Checklist

Client: Apex Laboratories LLC

Job Number: 570-60155-1

Login Number: 60155

List Source: Eurofins Calscience LLC

List Number: 1

Creator: Patel, Jayesh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

June 16, 2021

Mr. Philip Nerenberg
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: DXN & PCB Subcontract
Work Order: 18200
SDG: A1E0987

Dear Mr. Nerenberg:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on May 26, 2021. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Enclosures

SUBCONTRACT ORDER

Apex Laboratories

A1E0987

CFA WO#18200

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone: (910) 795-0421
Fax: -

Sample Name: SW-1(052421) Water Sampled: 05/24/21 09:30 (A1E0987-01)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	06/07/21 17:00 6/10/21	05/24/22 09:30	
Containers Supplied:			
(N) 1 L Amber Glass - Non Preserved			
(O) 1 L Amber Glass - Non Preserved			

1/8 UP Amber lids received cracked and replaced

Sample Name: SW-2(052421) Water Sampled: 05/24/21 09:45 (A1E0987-02)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	06/07/21 17:00 6/10/21	05/24/22 09:45	
Containers Supplied:			
(N) 1 L Amber Glass - Non Preserved			
(O) 1 L Amber Glass - Non Preserved			

T on 1/8 UP Ambers reads 955.

Sample Name: DUP(052421) Water Sampled: 05/24/21 09:35 (A1E0987-03)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	06/07/21 17:00 6/10/21	05/24/22 09:35	
Containers Supplied:			
(N) 1 L Amber Glass - Non Preserved			
(O) 1 L Amber Glass - Non Preserved			

Standard TAT

Temp. = 1.5°C

Released By: [Signature] Date: 5/25/21
Received By: [Signature] Date: 5/26/21 11:27
Released By: [Signature] Date: [Blank] Received By: [Signature] Date: [Blank]

Fed Ex (Shipper)

Fed Ex (Shipper)

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: <u>Apex</u>	Work Order: <u>18200</u>
Shipping Company: <u>FALCO</u>	Date/Time Received: <u>5/26/21 11:27</u>

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?			<input checked="" type="checkbox"/>
Samples < 2x background?			<input checked="" type="checkbox"/>

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?			<input checked="" type="checkbox"/>	Seal intact? Yes No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags loose ice blue ice dry ice none other (describe) Temperature Blank present: <input checked="" type="checkbox"/> Yes No
5 Aqueous samples found to have visible solids?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: <u>6-01=1.50</u> <u>SW-2 and Dup Minimal Solids</u>
5 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample IDs, containers affected and pH observed: <u>all-pH=7</u> If preservative added, Lot#:
7 Samples requiring preservation have no residual chlorine?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: If preservative added, Lot#:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			List type and number of containers / Sample IDs, containers affected: <u>received 6-1L N/A number</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

Checklist performed by: Initials: PO

Date: 5/26/21

CF-UD-F-7

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A1E0987
Work Order 18200**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Liquids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3520C
Analytical Batch Number: 47016
Clean Up Batch Number: 47011
Extraction Batch Number: 47010

Sample Analysis

Samples were received at 1.5°C. (18200001,18200002,18200003).
The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12029472	Method Blank (MB)
12029473	Laboratory Control Sample (LCS)
12029474	Laboratory Control Sample Duplicate (LCSD)
18200001	SW-1(052421)
18200002	SW-2(052421)
18200003	DUP(052421)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 20.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CVS) met the acceptance criteria.

Quality Control (QC) Information**Certification Statement**

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information**Receipt Temperature**

Samples were received within temperature requirements.

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information**Nonconformance (NCR) Documentation**

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP763_1	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A1E0987 CFA Work Order: 18200


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Erin Suhrie

Date: 16 JUN 2021

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1E0987
Lab Sample ID: 18200001
Client Sample: 1613B Water
Client ID: SW-1(052421)
Batch ID: 47016
Run Date: 06/09/2021 18:54
Data File: b09jun21b-12
Prep Batch: 47010
Prep Date: 03-JUN-21

Client: APEX001
Date Collected: 05/24/2021 09:30
Date Received: 05/26/2021 11:27

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1009.9 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	2.55	pg/L	2.55	9.90
40321-76-4	1,2,3,7,8-PeCDD	U	1.48	pg/L	1.48	49.5
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.72	pg/L	1.72	49.5
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.65	pg/L	1.65	49.5
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.70	pg/L	1.70	49.5
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	3.64	pg/L	3.64	49.5
3268-87-9	1,2,3,4,6,7,8,9-OCDD	J	8.71	pg/L	5.17	99.0
51207-31-9	2,3,7,8-TCDF	U	3.25	pg/L	3.25	9.90
57117-41-6	1,2,3,7,8-PeCDF	U	1.55	pg/L	1.55	49.5
57117-31-4	2,3,4,7,8-PeCDF	U	1.44	pg/L	1.44	49.5
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.09	pg/L	1.09	49.5
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.13	pg/L	1.13	49.5
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.12	pg/L	1.12	49.5
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.74	pg/L	1.74	49.5
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	1.61	pg/L	1.61	49.5
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.38	pg/L	2.38	49.5
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	4.28	pg/L	4.28	99.0
41903-57-5	Total TeCDD	U	2.55	pg/L	2.55	9.90
36088-22-9	Total PeCDD	U	1.48	pg/L	1.48	49.5
34465-46-8	Total HxCDD	U	1.65	pg/L	1.65	49.5
37871-00-4	Total HpCDD	U	3.64	pg/L	3.64	49.5
30402-14-3	Total TeCDF	U	3.25	pg/L	3.25	9.90
30402-15-4	Total PeCDF	U	1.44	pg/L	1.44	49.5
55684-94-1	Total HxCDF	U	1.09	pg/L	1.09	49.5
38998-75-3	Total HpCDF	U	1.61	pg/L	1.61	49.5
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.00261	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.96	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1170	1980	pg/L	59.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		1240	1980	pg/L	62.8	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1090	1980	pg/L	54.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1220	1980	pg/L	61.8	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1190	1980	pg/L	59.8	(23%-140%)
13C-OCDD		2090	3960	pg/L	52.7	(17%-157%)
13C-2,3,7,8-TCDF		1080	1980	pg/L	54.6	(24%-169%)
13C-1,2,3,7,8-PeCDF		1080	1980	pg/L	54.6	(24%-185%)
13C-2,3,4,7,8-PeCDF		1130	1980	pg/L	57.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1020	1980	pg/L	51.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1070	1980	pg/L	54.0	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1080	1980	pg/L	54.5	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1060	1980	pg/L	53.5	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

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SDG Number:	A1E0987	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	18200001	Date Collected:	05/24/2021 09:30	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	05/26/2021 11:27		
Client ID:	SW-1(052421)			Prep Basis:	As Received
Batch ID:	47016	Method:	EPA Method 1613B		
Run Date:	06/09/2021 18:54	Analyst:	MLL	Instrument:	HRP763
Data File:	b09jun21b-12			Dilution:	1
Prep Batch:	47010	Prep Method:	SW846 3520C		
Prep Date:	03-JUN-21	Prep Aliquot:	1009.9 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1040	1980	pg/L	52.4	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1120	1980	pg/L	56.6	(26%-138%)
37Cl-2,3,7,8-TCDD			186	198	pg/L	94.1	(35%-197%)

Comments:

J Value is estimated

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary

Page 1 of 2

SDG Number: A1E0987
Lab Sample ID: 18200002
Client Sample: 1613B Water
Client ID: SW-2(052421)
Batch ID: 47016
Run Date: 06/09/2021 19:44
Data File: b09jun21b-13
Prep Batch: 47010
Prep Date: 03-JUN-21

Client: APEX001
Date Collected: 05/24/2021 09:45
Date Received: 05/26/2021 11:27

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 993.4 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	2.21	pg/L	2.21	10.1
40321-76-4	1,2,3,7,8-PeCDD	U	2.70	pg/L	2.70	50.3
39227-28-6	1,2,3,4,7,8-HxCDD	U	3.91	pg/L	3.91	50.3
57653-85-7	1,2,3,6,7,8-HxCDD	U	3.70	pg/L	3.70	50.3
19408-74-3	1,2,3,7,8,9-HxCDD	U	3.83	pg/L	3.83	50.3
35822-46-9	1,2,3,4,6,7,8-HpCDD		247	pg/L	21.1	50.3
3268-87-9	1,2,3,4,6,7,8,9-OCDD		6270	pg/L	29.4	101
51207-31-9	2,3,7,8-TCDF	U	2.98	pg/L	2.98	10.1
57117-41-6	1,2,3,7,8-PeCDF	U	1.81	pg/L	1.81	50.3
57117-31-4	2,3,4,7,8-PeCDF	U	1.70	pg/L	1.70	50.3
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.76	pg/L	1.76	50.3
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.73	pg/L	1.73	50.3
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.79	pg/L	1.79	50.3
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.82	pg/L	2.82	50.3
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	7.71	pg/L	2.76	50.3
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	4.03	pg/L	4.03	50.3
39001-02-0	1,2,3,4,6,7,8,9-OCDF	JK	20.7	pg/L	11.6	101
41903-57-5	Total TeCDD	U	2.21	pg/L	2.21	10.1
36088-22-9	Total PeCDD	U	1.50	pg/L	1.50	50.3
34465-46-8	Total HxCDD	JK	19.9	pg/L	3.70	50.3
37871-00-4	Total HpCDD		568	pg/L	21.1	50.3
30402-14-3	Total TeCDF	U	2.98	pg/L	2.98	10.1
30402-15-4	Total PeCDF	JK	2.36	pg/L	1.17	50.3
55684-94-1	Total HxCDF	J	11.1	pg/L	1.73	50.3
38998-75-3	Total HpCDF	JK	31.3	pg/L	2.76	50.3
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		4.43	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		8.32	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1380	2010	pg/L	68.4	(25%-164%)
13C-1,2,3,7,8-PeCDD		1400	2010	pg/L	69.6	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1250	2010	pg/L	62.2	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1400	2010	pg/L	69.7	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1300	2010	pg/L	64.8	(23%-140%)
13C-OCDD		2400	4030	pg/L	59.6	(17%-157%)
13C-2,3,7,8-TCDF		1280	2010	pg/L	63.4	(24%-169%)
13C-1,2,3,7,8-PeCDF		1300	2010	pg/L	64.6	(24%-185%)
13C-2,3,4,7,8-PeCDF		1300	2010	pg/L	64.6	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1180	2010	pg/L	58.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1240	2010	pg/L	61.7	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1240	2010	pg/L	61.8	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1160	2010	pg/L	57.5	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

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SDG Number:	A1E0987	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	18200002	Date Collected:	05/24/2021 09:45	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	05/26/2021 11:27		
Client ID:	SW-2(052421)			Prep Basis:	As Received
Batch ID:	47016	Method:	EPA Method 1613B		
Run Date:	06/09/2021 19:44	Analyst:	MLL	Instrument:	HRP763
Data File:	b09jun21b-13			Dilution:	1
Prep Batch:	47010	Prep Method:	SW846 3520C		
Prep Date:	03-JUN-21	Prep Aliquot:	993.4 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1170	2010	pg/L	58.3	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1260	2010	pg/L	62.4	(26%-138%)
37Cl-2,3,7,8-TCDD			188	201	pg/L	93.5	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary

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SDG Number: A1E0987
Lab Sample ID: 18200003
Client Sample: 1613B Water
Client ID: DUP(052421)
Batch ID: 47016
Run Date: 06/09/2021 20:34
Data File: b09jun21b-14
Prep Batch: 47010
Prep Date: 03-JUN-21

Client: APEX001
Date Collected: 05/24/2021 09:35
Date Received: 05/26/2021 11:27

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 906.1 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	2.74	pg/L	2.74	11.0
40321-76-4	1,2,3,7,8-PeCDD	U	2.56	pg/L	2.56	55.2
39227-28-6	1,2,3,4,7,8-HxCDD	U	4.94	pg/L	4.94	55.2
57653-85-7	1,2,3,6,7,8-HxCDD	U	4.97	pg/L	4.97	55.2
19408-74-3	1,2,3,7,8,9-HxCDD	U	5.01	pg/L	5.01	55.2
35822-46-9	1,2,3,4,6,7,8-HpCDD		317	pg/L	21.5	55.2
3268-87-9	1,2,3,4,6,7,8,9-OCDD		6750	pg/L	34.7	110
51207-31-9	2,3,7,8-TCDF	U	3.51	pg/L	3.51	11.0
57117-41-6	1,2,3,7,8-PeCDF	U	2.45	pg/L	2.45	55.2
57117-31-4	2,3,4,7,8-PeCDF	U	2.30	pg/L	2.30	55.2
70648-26-9	1,2,3,4,7,8-HxCDF	U	3.31	pg/L	3.31	55.2
57117-44-9	1,2,3,6,7,8-HxCDF	U	3.11	pg/L	3.11	55.2
60851-34-5	2,3,4,6,7,8-HxCDF	U	3.44	pg/L	3.44	55.2
72918-21-9	1,2,3,7,8,9-HxCDF	U	5.08	pg/L	5.08	55.2
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	23.6	pg/L	3.97	55.2
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	5.58	pg/L	5.58	55.2
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	56.2	pg/L	9.87	110
41903-57-5	Total TeCDD	U	2.74	pg/L	2.74	11.0
36088-22-9	Total PeCDD	U	2.56	pg/L	2.56	55.2
34465-46-8	Total HxCDD	J	29.5	pg/L	4.94	55.2
37871-00-4	Total HpCDD		723	pg/L	21.5	55.2
30402-14-3	Total TeCDF	U	3.51	pg/L	3.51	11.0
30402-15-4	Total PeCDF	JK	4.28	pg/L	1.68	55.2
55684-94-1	Total HxCDF	JK	25.2	pg/L	3.11	55.2
38998-75-3	Total HpCDF	J	84.9	pg/L	3.97	55.2
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		5.45	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		10.2	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1450	2210	pg/L	65.8	(25%-164%)
13C-1,2,3,7,8-PeCDD		1540	2210	pg/L	69.8	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1350	2210	pg/L	61.0	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1460	2210	pg/L	66.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1420	2210	pg/L	64.5	(23%-140%)
13C-OCDD		2580	4410	pg/L	58.4	(17%-157%)
13C-2,3,7,8-TCDF		1380	2210	pg/L	62.4	(24%-169%)
13C-1,2,3,7,8-PeCDF		1400	2210	pg/L	63.5	(24%-185%)
13C-2,3,4,7,8-PeCDF		1450	2210	pg/L	65.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1270	2210	pg/L	57.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1310	2210	pg/L	59.3	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1310	2210	pg/L	59.3	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1300	2210	pg/L	59.1	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

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SDG Number:	A1E0987	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	18200003	Date Collected:	05/24/2021 09:35	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	05/26/2021 11:27		
Client ID:	DUP(052421)			Prep Basis:	As Received
Batch ID:	47016	Method:	EPA Method 1613B		
Run Date:	06/09/2021 20:34	Analyst:	MLL	Instrument:	HRP763
Data File:	b09jun21b-14			Dilution:	1
Prep Batch:	47010	Prep Method:	SW846 3520C		
Prep Date:	03-JUN-21	Prep Aliquot:	906.1 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1260	2210	pg/L	57.0	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1330	2210	pg/L	60.2	(26%-138%)
37Cl-2,3,7,8-TCDD			201	221	pg/L	91.0	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

SDG Number: A1E0987

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12029473	LCS for batch 47010	13C-2,3,7,8-TCDD		66.0	(20%-175%)
		13C-1,2,3,7,8-PeCDD		69.0	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		59.4	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		65.9	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		58.6	(22%-166%)
		13C-OCDD		52.7	(13%-199%)
		13C-2,3,7,8-TCDF		60.5	(22%-152%)
		13C-1,2,3,7,8-PeCDF		61.2	(21%-192%)
		13C-2,3,4,7,8-PeCDF		62.3	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		54.9	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		58.1	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		59.3	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		57.4	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		55.9	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		57.3	(20%-186%)
		37Cl-2,3,7,8-TCDD		95.4	(31%-191%)
12029474	LCSD for batch 47010	13C-2,3,7,8-TCDD		63.1	(20%-175%)
		13C-1,2,3,7,8-PeCDD		66.4	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		56.7	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		66.7	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		59.2	(22%-166%)
		13C-OCDD		53.4	(13%-199%)
		13C-2,3,7,8-TCDF		59.0	(22%-152%)
		13C-1,2,3,7,8-PeCDF		60.4	(21%-192%)
		13C-2,3,4,7,8-PeCDF		61.0	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		53.5	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		58.7	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		58.6	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		55.7	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		56.2	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		57.2	(20%-186%)
		37Cl-2,3,7,8-TCDD		94.0	(31%-191%)
12029472	MB for batch 47010	13C-2,3,7,8-TCDD		64.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		67.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		58.3	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		65.0	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		59.2	(23%-140%)
		13C-OCDD		58.4	(17%-157%)
		13C-2,3,7,8-TCDF		62.0	(24%-169%)
		13C-1,2,3,7,8-PeCDF		61.8	(24%-185%)
		13C-2,3,4,7,8-PeCDF		62.4	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		53.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		59.8	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		59.4	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		55.9	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		55.9	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		58.0	(26%-138%)
		37Cl-2,3,7,8-TCDD		90.4	(35%-197%)
18200001	SW-1(052421)	13C-2,3,7,8-TCDD		59.1	(25%-164%)

Hi-Res Dioxins/Furans Surrogate Recovery Report

SDG Number: A1E0987

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
18200001	SW-1(052421)	13C-1,2,3,7,8-PeCDD		62.8	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		54.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		61.8	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		59.8	(23%-140%)
		13C-OCDD		52.7	(17%-157%)
		13C-2,3,7,8-TCDF		54.6	(24%-169%)
		13C-1,2,3,7,8-PeCDF		54.6	(24%-185%)
		13C-2,3,4,7,8-PeCDF		57.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		51.6	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		54.0	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		54.5	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		53.5	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		52.4	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		56.6	(26%-138%)
		37Cl-2,3,7,8-TCDD		94.1	(35%-197%)
18200002	SW-2(052421)	13C-2,3,7,8-TCDD		68.4	(25%-164%)
		13C-1,2,3,7,8-PeCDD		69.6	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		62.2	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		69.7	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		64.8	(23%-140%)
		13C-OCDD		59.6	(17%-157%)
		13C-2,3,7,8-TCDF		63.4	(24%-169%)
		13C-1,2,3,7,8-PeCDF		64.6	(24%-185%)
		13C-2,3,4,7,8-PeCDF		64.6	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		58.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		61.7	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		61.8	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		57.5	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		58.3	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		62.4	(26%-138%)
		37Cl-2,3,7,8-TCDD		93.5	(35%-197%)
18200003	DUP(052421)	13C-2,3,7,8-TCDD		65.8	(25%-164%)
		13C-1,2,3,7,8-PeCDD		69.8	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		61.0	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		66.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		64.5	(23%-140%)
		13C-OCDD		58.4	(17%-157%)
		13C-2,3,7,8-TCDF		62.4	(24%-169%)
		13C-1,2,3,7,8-PeCDF		63.5	(24%-185%)
		13C-2,3,4,7,8-PeCDF		65.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		57.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		59.3	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		59.3	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		59.1	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		57.0	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		60.2	(26%-138%)
		37Cl-2,3,7,8-TCDD		91.0	(35%-197%)

* Recovery outside Acceptance Limits

Hi-Res Dioxins/Furans
Surrogate Recovery Report

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SDG Number: A1E0987**Matrix Type: LIQUID**

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
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* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: A1E0987

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 47010

Matrix: WATER

Lab Sample ID: 12029473

Instrument: HRP763

Analysis Date: 06/09/2021 10:37

Dilution: 1

Analyst: MLL

Prep Batch ID: 47010

Batch ID: 47016

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	200	191	95.3	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	1000	959	95.9	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	1000	948	94.8	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	1000	959	95.9	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	1000	970	97	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	1000	963	96.3	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	2000	1960	98.2	78-144
51207-31-9	LCS 2,3,7,8-TCDF	200	189	94.4	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	1000	1040	104	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	1000	1010	101	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	1000	1050	105	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	1000	1070	107	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	1000	1050	105	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	1000	1040	104	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	1000	1010	101	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	1000	1020	102	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	2000	2010	100	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 2 of 2

SDG Number: A1E0987

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 47010

Matrix: WATER

Lab Sample ID: 12029474

Instrument: HRP763

Analysis Date: 06/09/2021 11:26

Dilution: 1

Analyst: MLL

Prep Batch ID: 47010

Batch ID: 47016

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	200	184	91.9	67-158	3.64	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	1000	978	97.8	70-142	1.95	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	1000	968	96.8	70-164	2.05	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	1000	933	93.3	76-134	2.69	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	1000	973	97.3	64-162	0.280	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	1000	1020	102	70-140	5.67	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	2000	1890	94.7	78-144	3.68	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	200	186	93.2	75-158	1.28	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	1000	1010	101	80-134	2.52	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	1000	1030	103	68-160	1.79	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	1000	1030	103	72-134	2.08	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	1000	1060	106	84-130	1.77	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	1000	1050	105	70-156	0.511	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	1000	1040	104	78-130	0.808	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	1000	983	98.3	82-122	2.42	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	1000	1010	101	78-138	1.13	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	2000	2010	100	63-170	0.0458	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A1E0987
Client ID: MB for batch 47010
Lab Sample ID: 12029472
Column:

Client: APEX001
Instrument ID: HRP763
Prep Date: 03-JUN-21

Matrix: WATER
Data File: b09jun21b-4
Analyzed: 06/09/21 12:16

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 47010	12029473	b09jun21b-2	06/09/21	1037
02 LCSD for batch 47010	12029474	b09jun21b-3	06/09/21	1126
03 SW-1(052421)	18200001	b09jun21b-12	06/09/21	1854
04 SW-2(052421)	18200002	b09jun21b-13	06/09/21	1944
05 DUP(052421)	18200003	b09jun21b-14	06/09/21	2034

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A1E0987
Lab Sample ID: 12029472
Client Sample: QC for batch 47010
Client ID: MB for batch 47010
Batch ID: 47016
Run Date: 06/09/2021 12:16
Data File: b09jun21b-4
Prep Batch: 47010
Prep Date: 03-JUN-21

Client: APEX001

Method: EPA Method 1613B
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP763
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	2.68	pg/L	2.68	10.0
40321-76-4	1,2,3,7,8-PeCDD	U	1.63	pg/L	1.63	50.0
39227-28-6	1,2,3,4,7,8-HxCDD	U	2.18	pg/L	2.18	50.0
57653-85-7	1,2,3,6,7,8-HxCDD	U	2.12	pg/L	2.12	50.0
19408-74-3	1,2,3,7,8,9-HxCDD	U	2.16	pg/L	2.16	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	3.70	pg/L	3.70	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD	U	4.10	pg/L	4.10	100
51207-31-9	2,3,7,8-TCDF	U	3.78	pg/L	3.78	10.0
57117-41-6	1,2,3,7,8-PeCDF	U	1.78	pg/L	1.78	50.0
57117-31-4	2,3,4,7,8-PeCDF	U	1.65	pg/L	1.65	50.0
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.62	pg/L	1.62	50.0
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.60	pg/L	1.60	50.0
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.60	pg/L	1.60	50.0
72918-21-9	1,2,3,7,8,9-HxCDF	U	2.36	pg/L	2.36	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	1.52	pg/L	1.52	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.46	pg/L	2.46	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	5.64	pg/L	5.64	100
41903-57-5	Total TeCDD	U	2.68	pg/L	2.68	10.0
36088-22-9	Total PeCDD	U	1.63	pg/L	1.63	50.0
34465-46-8	Total HxCDD	U	2.12	pg/L	2.12	50.0
37871-00-4	Total HpCDD	U	3.70	pg/L	3.70	50.0
30402-14-3	Total TeCDF	U	3.78	pg/L	3.78	10.0
30402-15-4	Total PeCDF	U	1.65	pg/L	1.65	50.0
55684-94-1	Total HxCDF	U	1.60	pg/L	1.60	50.0
38998-75-3	Total HpCDF	U	1.52	pg/L	1.52	50.0
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.000	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		3.34	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1280	2000	pg/L	64.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		1350	2000	pg/L	67.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1170	2000	pg/L	58.3	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1300	2000	pg/L	65.0	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1180	2000	pg/L	59.2	(23%-140%)
13C-OCDD		2340	4000	pg/L	58.4	(17%-157%)
13C-2,3,7,8-TCDF		1240	2000	pg/L	62.0	(24%-169%)
13C-1,2,3,7,8-PeCDF		1240	2000	pg/L	61.8	(24%-185%)
13C-2,3,4,7,8-PeCDF		1250	2000	pg/L	62.4	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1070	2000	pg/L	53.6	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1200	2000	pg/L	59.8	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1190	2000	pg/L	59.4	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1120	2000	pg/L	55.9	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

Page 2 of 2

SDG Number:	A1E0987	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12029472			Matrix:	WATER
Client Sample:	QC for batch 47010				
Client ID:	MB for batch 47010			Prep Basis:	As Received
Batch ID:	47016	Method:	EPA Method 1613B		
Run Date:	06/09/2021 12:16	Analyst:	MLL	Instrument:	HRP763
Data File:	b09jun21b-4			Dilution:	1
Prep Batch:	47010	Prep Method:	SW846 3520C		
Prep Date:	03-JUN-21	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1120	2000	pg/L	55.9	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1160	2000	pg/L	58.0	(26%-138%)
37Cl-2,3,7,8-TCDD			181	200	pg/L	90.4	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary						
SDG Number: A1E0987			Client: APEX001		Project: APEX00320	
Lab Sample ID: 12029473					Matrix: WATER	
Client Sample: QC for batch 47010						
Client ID: LCS for batch 47010					Prep Basis: As Received	
Batch ID: 47016			Method: EPA Method 1613B			
Run Date: 06/09/2021 10:37			Analyst: MLL		Instrument: HRP763	
Data File: b09jun21b-2					Dilution: 1	
Prep Batch: 47010			Prep Method: SW846 3520C			
Prep Date: 03-JUN-21			Prep Aliquot: 1000 mL			

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		191	pg/L	2.80	10.0
40321-76-4	1,2,3,7,8-PeCDD		959	pg/L	4.70	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		948	pg/L	8.06	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		959	pg/L	7.68	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		970	pg/L	7.92	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		963	pg/L	14.8	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1960	pg/L	28.2	100
51207-31-9	2,3,7,8-TCDF		189	pg/L	4.24	10.0
57117-41-6	1,2,3,7,8-PeCDF		1040	pg/L	5.60	50.0
57117-31-4	2,3,4,7,8-PeCDF		1010	pg/L	5.14	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		1050	pg/L	10.4	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1070	pg/L	9.86	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		1050	pg/L	9.60	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		1040	pg/L	15.3	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		1010	pg/L	12.8	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		1020	pg/L	19.3	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		2010	pg/L	19.6	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1320	2000	pg/L	66.0	(20%-175%)
13C-1,2,3,7,8-PeCDD		1380	2000	pg/L	69.0	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1190	2000	pg/L	59.4	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1320	2000	pg/L	65.9	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1170	2000	pg/L	58.6	(22%-166%)
13C-OCDD		2110	4000	pg/L	52.7	(13%-199%)
13C-2,3,7,8-TCDF		1210	2000	pg/L	60.5	(22%-152%)
13C-1,2,3,7,8-PeCDF		1220	2000	pg/L	61.2	(21%-192%)
13C-2,3,4,7,8-PeCDF		1250	2000	pg/L	62.3	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1100	2000	pg/L	54.9	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1160	2000	pg/L	58.1	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1190	2000	pg/L	59.3	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1150	2000	pg/L	57.4	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1120	2000	pg/L	55.9	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1150	2000	pg/L	57.3	(20%-186%)
37Cl-2,3,7,8-TCDD		191	200	pg/L	95.4	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary						
SDG Number: A1E0987			Client: APEX001		Project: APEX00320	
Lab Sample ID: 12029474					Matrix: WATER	
Client Sample: QC for batch 47010						
Client ID: LCSD for batch 47010					Prep Basis: As Received	
Batch ID: 47016			Method: EPA Method 1613B			
Run Date: 06/09/2021 11:26			Analyst: MLL		Instrument: HRP763	
Data File: b09jun21b-3					Dilution: 1	
Prep Batch: 47010			Prep Method: SW846 3520C			
Prep Date: 03-JUN-21			Prep Aliquot: 1000 mL			

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		184	pg/L	2.86	10.0
40321-76-4	1,2,3,7,8-PeCDD		978	pg/L	4.68	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		968	pg/L	10.1	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		933	pg/L	9.66	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		973	pg/L	9.92	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		1020	pg/L	14.6	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1890	pg/L	30.6	100
51207-31-9	2,3,7,8-TCDF		186	pg/L	3.64	10.0
57117-41-6	1,2,3,7,8-PeCDF		1010	pg/L	5.72	50.0
57117-31-4	2,3,4,7,8-PeCDF		1030	pg/L	5.10	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		1030	pg/L	11.4	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1060	pg/L	11.3	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		1050	pg/L	11.2	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		1040	pg/L	17.1	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		983	pg/L	12.4	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		1010	pg/L	19.0	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		2010	pg/L	19.9	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1260	2000	pg/L	63.1	(20%-175%)
13C-1,2,3,7,8-PeCDD		1330	2000	pg/L	66.4	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1130	2000	pg/L	56.7	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1330	2000	pg/L	66.7	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1180	2000	pg/L	59.2	(22%-166%)
13C-OCDD		2130	4000	pg/L	53.4	(13%-199%)
13C-2,3,7,8-TCDF		1180	2000	pg/L	59.0	(22%-152%)
13C-1,2,3,7,8-PeCDF		1210	2000	pg/L	60.4	(21%-192%)
13C-2,3,4,7,8-PeCDF		1220	2000	pg/L	61.0	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1070	2000	pg/L	53.5	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1170	2000	pg/L	58.7	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1170	2000	pg/L	58.6	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1110	2000	pg/L	55.7	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1120	2000	pg/L	56.2	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1140	2000	pg/L	57.2	(20%-186%)
37Cl-2,3,7,8-TCDD		188	200	pg/L	94.0	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.



CERES Analytical Laboratory, Inc.

4919 Windplay Dr Suite 1, El Dorado Hills, CA 95762



December 31, 2021

Ceres ID: 14909

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223

The following report contains the results for the three solid samples received on December 22, 2021. These samples were analyzed for tetra through octa chlorinated dioxins and dibenzofurans by EPA method 1613. Rush turn-around time was provided for this work.

Sample results are reported on a dry weight basis.

This work was authorized under Apex Laboratories' Project # A1L0704.

The "H" qualifier on the samples signifies that the percent recovery for an internal standard is below the method limits. The results were deemed acceptable due to the signal to noise for the internal standard chromatograph peaks being >10:1.

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CCV) met the acceptance criteria.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

If you have any questions regarding this report, please feel free to contact me at (916)932-5011.

Sincerely,

James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
14909-001	CB-1 (A1L0704-01)	12/22/2021	12/14/2021 14:43
14909-002	CB-2 (A1L0704-02)	12/22/2021	12/14/2021 9:58
14909-003	CB-S (A1L0704-03)	12/22/2021	12/14/2021 15:40

Section II: Data Summary



EPA Method 1613B

Quality Assurance Sample Method Blank Project ID: A1L0704	QC Batch #: 2543 Matrix: Solid Sample Size: 10.00 g	Date Received: NA Date Extracted: 12/28/2021 Date Analyzed: 12/30/2021
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 0.128	0.172	0.500		13C-2378-TCDD	95.2	25-164	
12378-PeCDD	DL= 0.358	0.327	2.50		13C-12378-PeCDD	91.1	25-181	
123478-HxCDD	DL= 0.476	0.327	2.50		13C-123478-HxCDD	89.0	32-141	
123678-HxCDD	DL= 0.423	0.655	2.50		13C-123678-HxCDD	92.2	28-130	
123789-HxCDD	DL= 0.404	0.315	2.50		13C-1234678-HpCDD	76.0	23-140	
1234678-HpCDD	DL= 0.565	0.409	2.50		13C-OCDD	63.7	17-157	
OCDD	DL= 0.878	1.01	5.00		13C-2378-TCDF	81.3	24-169	
2,3,7,8-TCDF	DL= 0.138	0.0886	0.500		13C-12378-PeCDF	77.3	24-185	
12378-PeCDF	DL= 0.315	0.412	2.50		13C-23478-PeCDF	78.7	21-178	
23478-PeCDF	DL= 0.300	0.422	2.50		13C-123478-HxCDF	95.2	26-152	
123478-HxCDF	DL= 0.430	0.518	2.50		13C-123678-HxCDF	96.3	26-123	
123678-HxCDF	DL= 0.422	0.533	2.50		13C-234678-HxCDF	89.1	28-136	
234678-HxCDF	DL= 0.402	0.319	2.50		13C-123789-HxCDF	85.8	29-147	
123789-HxCDF	DL= 0.405	0.425	2.50		13C-1234678-HpCDF	71.8	28-143	
1234678-HpCDF	DL= 0.294	0.279	2.50		13C-1234789-HpCDF	70.2	26-138	
1234789-HpCDF	DL= 0.337	0.378	2.50					
OCDF	DL= 0.580	0.461	5.00					
Totals	Conc. (pg/g)	EMPC			CRS			
Total TCDD	DL= 0.128				37Cl4-2378-TCDD	89.7	35-197	
Total PeCDD	DL= 0.358							
Total HxCDD	DL= 0.476							
Total HpCDD	DL= 0.565							
Total TCDF	DL= 0.138							
Total PeCDF	DL= 0.315							
Total HxCDF	DL= 0.430							
Total HpCDF	DL= 0.337							

DL - Signifies Non-Detect (ND<) sample specific detection limit.

EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.

(a) - Lower control limit - Upper control limit

(b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.

Total Toxic Equivalency (TEQ min.) (b): 0.0 pg/g

Analyst: JMH

Reviewed by: BS



EPA Method 1613B

Quality Assurance Sample Ongoing Precision and Recovery Project ID: A1L0704	QC Batch #: 2543 Matrix: Solid Sample Size: 10.00 g	Date Received: NA Date Extracted: 12/28/2021 Date Analyzed: 12/30/2021
------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

Analyte	Conc. (ng/mL)	Limits (a)	Labeled Standards	% Rec.	Limits (a)
2,3,7,8-TCDD	8.52	6.7-15.8	13C-2378-TCDD	86.7	20-175
12378-PeCDD	51.1	35-71	13C-12378-PeCDD	78.0	21-227
123478-HxCDD	56.4	35-82	13C-123478-HxCDD	77.7	21-193
123678-HxCDD	58.9	38-67	13C-123678-HxCDD	85.8	25-163
123789-HxCDD	50.7	32-81	13C-1234678-HpCDD	63.9	26-166
1234678-HpCDD	52.9	35-70	13C-OCDD	58.9	13-198
OCDD	101	78-144	13C-2378-TCDF	74.7	22-152
2,3,7,8-TCDF	10.0	7.5-15.8	13C-12378-PeCDF	69.5	21-192
12378-PeCDF	50.2	40-67	13C-23478-PeCDF	68.4	13-328
23478-PeCDF	52.9	34-80	13C-123478-HxCDF	81.9	19-202
123478-HxCDF	57.9	36-67	13C-123678-HxCDF	80.8	21-159
123678-HxCDF	55.6	42-65	13C-234678-HxCDF	80.3	22-176
234678-HxCDF	56.8	35-78	13C-123789-HxCDF	81.7	17-205
123789-HxCDF	56.9	39-65	13C-1234678-HpCDF	64.1	21-158
1234678-HpCDF	52.5	41-61	13C-1234789-HpCDF	56.8	20-186
1234789-HpCDF	52.0	39-69			
OCDF	101	63-170			
			CRS		
			37Cl4-2378-TCDD	86.3	31-191
			(a) Limits based on method acceptance criteria.		

Analyst: JMH

Reviewed by: BS



EPA Method 1613B

Client Sample ID: CB-1 (A1L0704-01)		
Project ID: A1L0704	Ceres Sample ID: 14909-001	Date Received: 12/22/2021
Date Collected: 12/14/2021	QC Batch #: 2543	Date Extracted: 12/28/2021
Time Collected: 2:43 PM	Matrix: Solid	Date Analyzed: 12/30/2021
	Sample Size: 53.33 g % Solids: 18.7	

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	3.87	0.172	0.502		13C-2378-TCDD	84.4	25-164	
12378-PeCDD	19.8	0.327	2.51		13C-12378-PeCDD	76.5	25-181	
123478-HxCDD	21.9	0.327	2.51		13C-123478-HxCDD	81.5	32-141	
123678-HxCDD	39.8	0.655	2.51		13C-123678-HxCDD	79.9	28-130	
123789-HxCDD	35.4	0.315	2.51		13C-1234678-HpCDD	62.2	23-140	
1234678-HpCDD	1,170	0.409	2.51		13C-OCDD	46.5	17-157	
OCDD	17,100	1.01	5.02	E	13C-2378-TCDF	70.8	24-169	
2,3,7,8-TCDF	2.83	0.0886	0.502		13C-12378-PeCDF	70.3	24-185	
12378-PeCDF	2.68	0.412	2.51		13C-23478-PeCDF	68.2	21-178	
23478-PeCDF	5.20	0.422	2.51		13C-123478-HxCDF	81.0	26-152	
123478-HxCDF	9.83	0.518	2.51		13C-123678-HxCDF	81.9	26-123	
123678-HxCDF	8.17	0.533	2.51		13C-234678-HxCDF	75.2	28-136	
234678-HxCDF	12.1	0.319	2.51		13C-123789-HxCDF	78.6	29-147	
123789-HxCDF	4.46	0.425	2.51		13C-1234678-HpCDF	53.4	28-143	
1234678-HpCDF	136	0.279	2.51		13C-1234789-HpCDF	54.3	26-138	
1234789-HpCDF	9.47	0.378	2.51					
OCDF	276	0.461	5.02					
Totals	Conc. (pg/g)	EMPC			CRS			
Total TCDD	32.5				37CI4-2378-TCDD	77.9	35-197	
Total PeCDD	110				DL - Signifies Non-Detect (ND<) sample specific detection limit. EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure. (a) - Lower control limit - Upper control limit (b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.			
Total HxCDD	416							
Total HpCDD	2,420							
Total TCDF	75.0							
Total PeCDF	90.1							
Total HxCDF	261							
Total HpCDF	361							

Total Toxic Equivalency (TEQ min.) (b): 57.1 pg/g

Analyst: JMH

Reviewed by: BS



EPA Method 1613B

Client Sample ID: CB-2 (A1L0704-02)		
Project ID: A1L0704	Ceres Sample ID: 14909-003	Date Received: 12/22/2021
Date Collected: 12/14/2021	QC Batch #: 2543	Date Extracted: 12/28/2021
Time Collected: 2:43 PM	Matrix: Solid	Date Analyzed: 12/30/2021
	Sample Size: 27.64 g	% Solids: 36.0

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	3.46	0.172	0.503		13C-2378-TCDD	94.0	25-164	
12378-PeCDD	26.4	0.327	2.51		13C-12378-PeCDD	80.2	25-181	
123478-HxCDD	42.2	0.327	2.51		13C-123478-HxCDD	82.3	32-141	
123678-HxCDD	102	0.655	2.51		13C-123678-HxCDD	82.8	28-130	
123789-HxCDD	53.7	0.315	2.51		13C-1234678-HpCDD	60.2	23-140	
1234678-HpCDD	4,180	0.409	2.51	E	13C-OCDD	47.0	17-157	
OCDD	56,900	1.01	5.03	E	13C-2378-TCDF	79.9	24-169	
2,3,7,8-TCDF	5.48	0.0886	0.503		13C-12378-PeCDF	77.0	24-185	
12378-PeCDF	4.15	0.412	2.51		13C-23478-PeCDF	74.7	21-178	
23478-PeCDF	10.1	0.422	2.51		13C-123478-HxCDF	88.9	26-152	
123478-HxCDF	16.7	0.518	2.51		13C-123678-HxCDF	86.3	26-123	
123678-HxCDF	17.6	0.533	2.51		13C-234678-HxCDF	77.3	28-136	
234678-HxCDF	26.4	0.319	2.51		13C-123789-HxCDF	78.1	29-147	
123789-HxCDF	6.45	0.425	2.51		13C-1234678-HpCDF	51.8	28-143	
1234678-HpCDF	483	0.279	2.51		13C-1234789-HpCDF	50.7	26-138	
1234789-HpCDF	26.9	0.378	2.51					
OCDF	863	0.461	5.03					
Totals	Conc. (pg/g)	EMPC			CRS			
Total TCDD	26.2				37CI4-2378-TCDD	84.4	35-197	
Total PeCDD	137				DL - Signifies Non-Detect (ND<) sample specific detection limit. EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure. (a) - Lower control limit - Upper control limit (b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.			
Total HxCDD	820							
Total HpCDD	8,510							
Total TCDF	112							
Total PeCDF	236							
Total HxCDF	1,100							
Total HpCDF	1,490							

Total Toxic Equivalency (TEQ min.) (b): 124 pg/g

Analyst: JMH

Reviewed by: BS



EPA Method 1613B

Client Sample ID: CB-S (A1L0704-03)		
Project ID: A1L0704	Ceres Sample ID: 14909-003	Date Received: 12/22/2021
Date Collected: 12/14/2021	QC Batch #: 2543	Date Extracted: 12/28/2021
Time Collected: 2:43 PM	Matrix: Solid	Date Analyzed: 12/30/2021
	Sample Size: 38.18 g	% Solids: 26.1

Analyte	Conc. (pg/g)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	4.79	0.172	0.502		13C-2378-TCDD	95.1	25-164	
12378-PeCDD	70.1	0.327	2.51		13C-12378-PeCDD	65.2	25-181	
123478-HxCDD	129	0.327	2.51		13C-123478-HxCDD	65.1	32-141	
123678-HxCDD	362	0.655	2.51		13C-123678-HxCDD	74.0	28-130	
123789-HxCDD	163	0.315	2.51		13C-1234678-HpCDD	6.70	23-140	H
1234678-HpCDD	11,900	0.409	2.51	E	13C-OCDD	17.0	17-157	
OCDD	120,000	1.01	5.02	E	13C-2378-TCDF	73.9	24-169	
2,3,7,8-TCDF	16.0	0.0886	0.502		13C-12378-PeCDF	61.0	24-185	
12378-PeCDF	13.5	0.412	2.51		13C-23478-PeCDF	52.9	21-178	
23478-PeCDF	55.7	0.422	2.51		13C-123478-HxCDF	74.5	26-152	
123478-HxCDF	108	0.518	2.51		13C-123678-HxCDF	73.9	26-123	
123678-HxCDF	100	0.533	2.51		13C-234678-HxCDF	56.6	28-136	
234678-HxCDF	161	0.319	2.51		13C-123789-HxCDF	55.9	29-147	
123789-HxCDF	56.2	0.425	2.51		13C-1234678-HpCDF	11.7	28-143	H
1234678-HpCDF	3,000	0.279	2.51	E	13C-1234789-HpCDF	9.42	26-138	H
1234789-HpCDF	214	0.378	2.51					
OCDF	6,410	0.461	5.02	E				
Totals	Conc. (pg/g)	EMPC			CRS			
Total TCDD	37.8				37CI4-2378-TCDD	93.8	35-197	
Total PeCDD	290				DL - Signifies Non-Detect (ND<) sample specific detection limit. EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure. (a) - Lower control limit - Upper control limit (b) - TEQ based on (2005) World Health Organization (WHO) Toxic Equivalent Factors.			
Total HxCDD	2,110							
Total HpCDD	37,300							
Total TCDF	319							
Total PeCDF	1,220							
Total HxCDF	7,440							
Total HpCDF	16,900							

Total Toxic Equivalency (TEQ min.) (b): 391 pg/g

Analyst: JMH

Reviewed by: BS

Section VI: Sample Tracking

SUBCONTRACT ORDER

Apex Laboratories

A1L0704

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Ceres Analytical Laboratory, Inc
4919 Windplay Drive, Suite 1
El Dorado Hills, CA 95762
Phone : (916) 932-5011
Fax: -9

Sample Name: CB-1

Solid

Sampled: 12/14/21 14:43

(A1L0704-01)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

1613B Dioxins and Furans (SUB)

01/03/22 17:00

12/14/22 14:43

Containers Supplied:

(E)8 oz Glass Jar

Sample Name: CB-2

Solid

Sampled: 12/14/21 09:58

(A1L0704-02)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

1613B Dioxins and Furans (SUB)

01/03/22 17:00

12/14/22 09:58

Containers Supplied:

(E)8 oz Glass Jar

Sample Name: CB-S

Solid

Sampled: 12/14/21 15:40

(A1L0704-03)

Analysis	Due	Expires	Comments
----------	-----	---------	----------

1613B Dioxins and Furans (SUB)

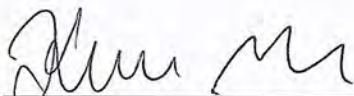
01/03/22 17:00

12/14/22 15:40

Containers Supplied:

(E)8 oz Glass Jar

Rush - 2 week TAT from received date



12/20/21

UPS (Shipper)

Released By

Date

Received By

Date

UPS (Shipper)

Released By

Date

Received By

Date

12/22/21 0945

Sample Receipt Check List Logged by: J (initials)

Ceres ID: <u>14909</u>	Date/Time: <u>12/22/21 0945</u>
Client Project ID: <u>A1C0704</u>	Received Temp: <u>4.2</u> °C Acceptable: <u>Y</u> / N
Chain of Custody Relinquished by signed?	<u>Y</u> / N
Chain of Custody Received by signed?	<u>Y</u> / N
Custody Seals? Present?	Y / N
Intact?	Y / N
NA:	<u>NA</u>
Unlabeled / Illegible Samples	<u>Y</u> / N
Proper Containers:	<u>Y</u> / N
Preservation Acceptable (Chemical or <u>Temperature</u>)?	<u>Y</u> / N
Drinking Water, Sodium Thiosulfate present? Residual Cl?	Y / N / <u>NA</u>
Aqueous sample pH: <u>NA</u>	Y / N
List COC discrepancies:	
<u>J 12/22/21</u>	
List Damaged Samples:	
<u>J 12/22/21</u>	

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
I	Interference. See cover letter.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Saturday, July 9, 2022

Erik Hedberg

NV5

9450 SW Commerce Circle

Wilsonville, OR 97070

RE: A2F0009 - BCSAmerica-1-02 - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0009, which was received by the laboratory on 5/31/2022 at 1:40:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1

3.4 degC

Cooler#2

1.7 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1(052822)	A2F0009-01	Water	05/28/22 14:57	05/31/22 13:40
SW-2(052822)	A2F0009-02	Water	05/28/22 15:39	05/31/22 13:40

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:**A2F0009 - 07 09 22 1453****ANALYTICAL SAMPLE RESULTS****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water			Batch: 22F0123			
Diesel	ND	0.0935	0.187	mg/L	1	06/04/22 02:27	NWTPH-Dx	
Oil	ND	0.187	0.374	mg/L	1	06/04/22 02:27	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>06/04/22 02:27</i>	<i>NWTPH-Dx</i>	
SW-2(052822) (A2F0009-02)		Matrix: Water			Batch: 22F0123			
Diesel	ND	0.0935	0.187	mg/L	1	06/04/22 02:50	NWTPH-Dx	
Oil	ND	0.187	0.374	mg/L	1	06/04/22 02:50	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>06/04/22 02:50</i>	<i>NWTPH-Dx</i>	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water			Batch: 22F0069			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/02/22 12:20	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	103 %	Limits:	50-150 %	1	06/02/22 12:20	NWTPH-Gx (MS)
1,4-Difluorobenzene (Sur)			106 %		50-150 %	1	06/02/22 12:20	NWTPH-Gx (MS)
SW-2(052822) (A2F0009-02)		Matrix: Water			Batch: 22F0069			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/02/22 13:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	100 %	Limits:	50-150 %	1	06/02/22 13:14	NWTPH-Gx (MS)
1,4-Difluorobenzene (Sur)			104 %		50-150 %	1	06/02/22 13:14	NWTPH-Gx (MS)

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water			Batch: 22F0069			
Acetone	ND	20.0	20.0	ug/L	1	06/02/22 12:20	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	06/02/22 12:20	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/02/22 12:20	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/02/22 12:20	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/02/22 12:20	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Chloroethane	ND	25.0	25.0	ug/L	1	06/02/22 12:20	EPA 8260D	EST
Chloroform	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/02/22 12:20	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water			Batch: 22F0069			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/02/22 12:20	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	06/02/22 12:20	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/02/22 12:20	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	06/02/22 12:20	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	06/02/22 12:20	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/02/22 12:20	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	06/02/22 12:20	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	06/02/22 12:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits:	80-120 %	1	06/02/22 12:20	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	06/02/22 12:20	EPA 8260D
4-Bromofluorobenzene (Surr)			100 %		80-120 %	1	06/02/22 12:20	EPA 8260D

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052822) (A2F0009-02)		Matrix: Water			Batch: 22F0069			
Acetone	ND	10.0	20.0	ug/L	1	06/02/22 13:14	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	06/02/22 13:14	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	06/02/22 13:14	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	06/02/22 13:14	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	06/02/22 13:14	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Chloroethane	ND	25.0	25.0	ug/L	1	06/02/22 13:14	EPA 8260D	EST
Chloroform	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	06/02/22 13:14	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052822) (A2F0009-02)		Matrix: Water			Batch: 22F0069			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	06/02/22 13:14	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	06/02/22 13:14	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	06/02/22 13:14	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	06/02/22 13:14	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	06/02/22 13:14	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	06/02/22 13:14	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	06/02/22 13:14	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	06/02/22 13:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	103 %	Limits:	80-120 %	1	06/02/22 13:14	EPA 8260D
Toluene-d8 (Surr)			100 %		80-120 %	1	06/02/22 13:14	EPA 8260D
4-Bromofluorobenzene (Surr)			99 %		80-120 %	1	06/02/22 13:14	EPA 8260D

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water			Batch: 22F0143			
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/22 17:00	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/22 17:00	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/22 17:00	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %	1	06/03/22 17:00	EPA 8260D SIM	
Toluene-d8 (Surr)		99 %		80-120 %	1	06/03/22 17:00	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		101 %		80-120 %	1	06/03/22 17:00	EPA 8260D SIM	
SW-2(052822) (A2F0009-02)		Matrix: Water			Batch: 22F0143			
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	06/03/22 17:27	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	06/03/22 17:27	EPA 8260D SIM	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	06/03/22 17:27	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %	1	06/03/22 17:27	EPA 8260D SIM	
Toluene-d8 (Surr)		100 %		80-120 %	1	06/03/22 17:27	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		101 %		80-120 %	1	06/03/22 17:27	EPA 8260D SIM	

Apex Laboratories

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ANALYTICAL REPORT

Apex Laboratories, LLC

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ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

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A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water			Batch: 22F0177		C-07	
Aroclor 1016	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1221	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1232	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1242	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1248	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1254	0.0113	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	J
Aroclor 1260	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1262	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Aroclor 1268	ND	0.00943	0.0189	ug/L	1	06/07/22 19:02	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 59 %		Limits: 40-135 %	1	06/07/22 19:02	EPA 8082A	
SW-2(052822) (A2F0009-02)		Matrix: Water			Batch: 22F0177		C-07	
Aroclor 1016	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1221	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1232	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1242	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1248	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1254	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1260	0.0395	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	P-09
Aroclor 1262	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Aroclor 1268	ND	0.00943	0.0189	ug/L	1	06/07/22 19:19	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recovery: 54 %		Limits: 40-135 %	1	06/07/22 19:19	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01RE3)				Matrix: Water		Batch: 22F0121		
Aniline	ND	0.0467	0.0935	ug/L	1	06/06/22 12:07	EPA 8270E	
SW-1(052822) (A2F0009-01RE4)				Matrix: Water		Batch: 22F0121		
Acenaphthene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Acenaphthylene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Anthracene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Benz(a)anthracene	0.0216	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Benzo(a)pyrene	0.0350	0.0140	0.0280	ug/L	1	06/06/22 14:18	EPA 8270E	
Benzo(b)fluoranthene	0.0380	0.0140	0.0280	ug/L	1	06/06/22 14:18	EPA 8270E	
Benzo(k)fluoranthene	0.0160	0.0140	0.0280	ug/L	1	06/06/22 14:18	EPA 8270E	J
Benzo(g,h,i)perylene	0.0294	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Chrysene	0.0406	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Fluoranthene	0.0598	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	B-02
Fluorene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.0215	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
1-Methylnaphthalene	ND	0.0187	0.0374	ug/L	1	06/06/22 14:18	EPA 8270E	
2-Methylnaphthalene	ND	0.0187	0.0374	ug/L	1	06/06/22 14:18	EPA 8270E	
Naphthalene	ND	0.0187	0.0374	ug/L	1	06/06/22 14:18	EPA 8270E	
Phenanthrene	0.0435	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	B-02
Pyrene	0.0621	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	B-02
Carbazole	ND	0.0140	0.0280	ug/L	1	06/06/22 14:18	EPA 8270E	
Dibenzofuran	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
2-Chlorophenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	
2,4-Dichlorophenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
2,4-Dimethylphenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
2,4-Dinitrophenol	ND	0.234	0.467	ug/L	1	06/06/22 14:18	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.234	0.467	ug/L	1	06/06/22 14:18	EPA 8270E	
2-Methylphenol	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
2-Nitrophenol	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	
4-Nitrophenol	ND	0.187	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01RE4)		Matrix: Water			Batch: 22F0121			
Pentachlorophenol (PCP)	0.0950	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	J
Phenol	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
Bis(2-ethylhexyl)phthalate	0.212	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	J
Butyl benzyl phthalate	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
Diethylphthalate	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
Dimethylphthalate	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
Di-n-butylphthalate	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
Di-n-octyl phthalate	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
Hexachlorobenzene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
Hexachlorobutadiene	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0467	0.0935	ug/L	1	06/06/22 14:18	EPA 8270E	
Hexachloroethane	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
2-Chloronaphthalene	ND	0.00935	0.0187	ug/L	1	06/06/22 14:18	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
4-Chloroaniline	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E	
2-Nitroaniline	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
3-Nitroaniline	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
4-Nitroaniline	ND	0.187	0.374	ug/L	1	06/06/22 14:18	EPA 8270E	
Nitrobenzene	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
SW-1(052822) (A2F0009-01RE4)		Matrix: Water			Batch: 22F0121					
Benzoic acid	ND	1.17	2.34	ug/L	1	06/06/22 14:18	EPA 8270E	Q-52		
Benzyl alcohol	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E			
Isophorone	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E			
Azobenzene (1,2-DPH)	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E			
Bis(2-Ethylhexyl) adipate	ND	0.234	0.467	ug/L	1	06/06/22 14:18	EPA 8270E			
3,3'-Dichlorobenzidine	ND	0.467	0.935	ug/L	1	06/06/22 14:18	EPA 8270E			
1,2-Dinitrobenzene	ND	0.234	0.467	ug/L	1	06/06/22 14:18	EPA 8270E			
1,3-Dinitrobenzene	ND	0.234	0.467	ug/L	1	06/06/22 14:18	EPA 8270E			
1,4-Dinitrobenzene	ND	0.234	0.467	ug/L	1	06/06/22 14:18	EPA 8270E			
Pyridine	ND	0.0935	0.187	ug/L	1	06/06/22 14:18	EPA 8270E			
1,2-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E			
1,3-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E			
1,4-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	06/06/22 14:18	EPA 8270E			
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:		40 %	Limits:	44-120 %	1	06/06/22 14:18	EPA 8270E	S-06
2-Fluorobiphenyl (Surr)				47 %		44-120 %	1	06/06/22 14:18	EPA 8270E	
Phenol-d6 (Surr)				13 %		10-133 %	1	06/06/22 14:18	EPA 8270E	
p-Terphenyl-d14 (Surr)				70 %		50-134 %	1	06/06/22 14:18	EPA 8270E	
2-Fluorophenol (Surr)				19 %		19-120 %	1	06/06/22 14:18	EPA 8270E	
2,4,6-Tribromophenol (Surr)				83 %		43-140 %	1	06/06/22 14:18	EPA 8270E	
SW-2(052822) (A2F0009-02RE1)		Matrix: Water			Batch: 22F0121					
Acenaphthene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	J		
Acenaphthylene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			
Anthracene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			
Benz(a)anthracene	0.0691	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	J		
Benzo(a)pyrene	0.146	0.0561	0.112	ug/L	4	06/03/22 16:55	EPA 8270E			
Benzo(b)fluoranthene	0.187	0.0561	0.112	ug/L	4	06/03/22 16:55	EPA 8270E			
Benzo(k)fluoranthene	0.0733	0.0561	0.112	ug/L	4	06/03/22 16:55	EPA 8270E			
Benzo(g,h,i)perylene	0.114	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			
Chrysene	0.151	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			
Dibenz(a,h)anthracene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			
Fluoranthene	0.238	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E		B-02	
Fluorene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			
Indeno(1,2,3-cd)pyrene	0.112	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E			

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052822) (A2F0009-02RE1)		Matrix: Water			Batch: 22F0121			
1-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	06/03/22 16:55	EPA 8270E	
2-Methylnaphthalene	ND	0.0748	0.150	ug/L	4	06/03/22 16:55	EPA 8270E	
Naphthalene	ND	0.0748	0.150	ug/L	4	06/03/22 16:55	EPA 8270E	
Phenanthrene	0.0889	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	B-02
Pyrene	0.200	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	B-02
Carbazole	ND	0.0561	0.112	ug/L	4	06/03/22 16:55	EPA 8270E	
Dibenzofuran	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	
2-Chlorophenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
2,4-Dichlorophenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
2,4-Dimethylphenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
2,4-Dinitrophenol	ND	0.935	1.87	ug/L	4	06/03/22 16:55	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.935	1.87	ug/L	4	06/03/22 16:55	EPA 8270E	
2-Methylphenol	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
2-Nitrophenol	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
4-Nitrophenol	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
Phenol	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
Butyl benzyl phthalate	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
Diethylphthalate	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
Dimethylphthalate	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
Di-n-butylphthalate	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
Di-n-octyl phthalate	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052822) (A2F0009-02RE1)		Matrix: Water			Batch: 22F0121			
Bis(2-Chloroethyl) ether	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
Hexachlorobenzene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	
Hexachlorobutadiene	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.187	0.374	ug/L	4	06/03/22 16:55	EPA 8270E	
Hexachloroethane	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
2-Chloronaphthalene	ND	0.0374	0.0748	ug/L	4	06/03/22 16:55	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
4-Chloroaniline	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
2-Nitroaniline	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
3-Nitroaniline	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
4-Nitroaniline	ND	0.748	1.50	ug/L	4	06/03/22 16:55	EPA 8270E	
Nitrobenzene	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
2,4-Dinitrotoluene	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
2,6-Dinitrotoluene	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
Benzoic acid	ND	4.67	9.35	ug/L	4	06/03/22 16:55	EPA 8270E	
Benzyl alcohol	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
Isophorone	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.935	1.87	ug/L	4	06/03/22 16:55	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.87	3.74	ug/L	4	06/03/22 16:55	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.935	1.87	ug/L	4	06/03/22 16:55	EPA 8270E	
1,3-Dinitrobenzene	ND	0.935	1.87	ug/L	4	06/03/22 16:55	EPA 8270E	
1,4-Dinitrobenzene	ND	0.935	1.87	ug/L	4	06/03/22 16:55	EPA 8270E	
Pyridine	ND	0.374	0.748	ug/L	4	06/03/22 16:55	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0935	0.187	ug/L	4	06/03/22 16:55	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery:	35 %	Limits:	44-120 %	4	06/03/22 16:55	EPA 8270E S-03
2-Fluorobiphenyl (Surr)			48 %		44-120 %	4	06/03/22 16:55	EPA 8270E
Phenol-d6 (Surr)			11 %		10-133 %	4	06/03/22 16:55	EPA 8270E

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-2(052822) (A2F0009-02RE1)		Matrix: Water			Batch: 22F0121			
Surrogate: p-Terphenyl-d14 (Surr)		Recovery: 75 %	Limits: 50-134 %	4		06/03/22 16:55	EPA 8270E	
2-Fluorophenol (Surr)		16 %	19-120 %	4		06/03/22 16:55	EPA 8270E	S-03
2,4,6-Tribromophenol (Surr)		85 %	43-140 %	4		06/03/22 16:55	EPA 8270E	
SW-2(052822) (A2F0009-02RE2)		Matrix: Water			Batch: 22F0121			
Aniline	ND	0.187	0.374	ug/L	4	06/06/22 12:43	EPA 8270E	

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9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water						
Batch: 22F0182								
Antimony	ND	0.500	1.00	ug/L	1	06/07/22 02:46	EPA 200.8	
Beryllium	ND	0.100	0.200	ug/L	1	06/07/22 02:46	EPA 200.8	
Chromium	5.54	1.00	2.00	ug/L	1	06/07/22 02:46	EPA 200.8	
Copper	19.8	1.00	2.00	ug/L	1	06/07/22 02:46	EPA 200.8	
Lead	4.78	0.100	0.200	ug/L	1	06/07/22 02:46	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	06/07/22 02:46	EPA 200.8	
Nickel	1.57	1.00	2.00	ug/L	1	06/07/22 02:46	EPA 200.8	J
Selenium	ND	0.500	1.00	ug/L	1	06/07/22 02:46	EPA 200.8	
Silver	ND	0.100	0.200	ug/L	1	06/07/22 02:46	EPA 200.8	
Thallium	ND	0.100	0.200	ug/L	1	06/07/22 02:46	EPA 200.8	
Zinc	72.9	2.00	4.00	ug/L	1	06/07/22 02:46	EPA 200.8	
SW-2(052822) (A2F0009-02)		Matrix: Water						
Batch: 22F0182								
Antimony	ND	0.500	1.00	ug/L	1	06/07/22 02:51	EPA 200.8	
Beryllium	ND	0.100	0.200	ug/L	1	06/07/22 02:51	EPA 200.8	
Chromium	1.60	1.00	2.00	ug/L	1	06/07/22 02:51	EPA 200.8	J
Copper	5.93	1.00	2.00	ug/L	1	06/07/22 02:51	EPA 200.8	
Lead	3.36	0.100	0.200	ug/L	1	06/07/22 02:51	EPA 200.8	
Mercury	ND	0.0400	0.0800	ug/L	1	06/07/22 02:51	EPA 200.8	
Nickel	1.05	1.00	2.00	ug/L	1	06/07/22 02:51	EPA 200.8	J
Selenium	ND	0.500	1.00	ug/L	1	06/07/22 02:51	EPA 200.8	
Silver	ND	0.100	0.200	ug/L	1	06/07/22 02:51	EPA 200.8	
Thallium	ND	0.100	0.200	ug/L	1	06/07/22 02:51	EPA 200.8	
Zinc	40.7	2.00	4.00	ug/L	1	06/07/22 02:51	EPA 200.8	

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Wilsonville, OR 97070

Project: **BCSAmerica-1-02**
Project Number: [none]
Project Manager: Erik Hedberg

Report ID:
A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)		Matrix: Water						
Batch: 22F0281								
Arsenic	0.357	0.100	0.200	ug/L	1	06/09/22 22:00	EPA 200.8-LL	
Cadmium	0.0523	0.0200	0.0400	ug/L	1	06/09/22 22:00	EPA 200.8-LL	
SW-2(052822) (A2F0009-02)		Matrix: Water						
Batch: 22F0281								
Arsenic	0.386	0.100	0.200	ug/L	1	06/09/22 22:08	EPA 200.8-LL	
Cadmium	0.0534	0.0200	0.0400	ug/L	1	06/09/22 22:08	EPA 200.8-LL	

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Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)				Matrix: Water				
Batch: 22F0112								
Total Suspended Solids	21.4	5.00	5.00	mg/L	1	06/02/22 18:53	SM 2540 D	
SW-2(052822) (A2F0009-02)				Matrix: Water				
Batch: 22F0112								
Total Suspended Solids	36.8	5.00	5.00	mg/L	1	06/02/22 18:53	SM 2540 D	

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Project Number: [none]

Project Manager: Erik Hedberg

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A2F0009 - 07 09 22 1453

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Organo Tin by GC/MS

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-1(052822) (A2F0009-01)				Matrix: Water		Batch: W2F0377		
Batch: W2F0377								
Tri-n-butyltin	ND	---	0.0050	ug/l	1	06/10/22 18:56	SM 6710B	
Batch: W2F0377								
Surrogate: Triphenyltin		Recovery: 112 %		Limits: 43-179 %	1	06/10/22 18:56	SM 6710B	
SW-2(052822) (A2F0009-02)				Matrix: Water		Batch: W2F0377		
Batch: W2F0377								
Tri-n-butyltin	ND	---	0.0050	ug/l	1	06/10/22 19:15	SM 6710B	
Batch: W2F0377								
Surrogate: Triphenyltin		Recovery: 120 %		Limits: 43-179 %	1	06/10/22 19:15	SM 6710B	

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**NV5**
9450 SW Commerce Circle
Wilsonville, OR 97070Project: **BCSAmerica-1-02**
Project Number: [none]
Project Manager: Erik Hedberg**Report ID:**
A2F0009 - 07 09 22 1453**QUALITY CONTROL (QC) SAMPLE RESULTS****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0123 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (22F0123-BLK1)			Prepared: 06/03/22 05:26 Analyzed: 06/03/22 21:59									
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	0.182	0.364	mg/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
LCS (22F0123-BS1)			Prepared: 06/03/22 05:26 Analyzed: 06/03/22 22:21									
NWTPH-Dx												
Diesel	1.10	0.100	0.200	mg/L	1	1.25	---	88	36-132%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 102 %		Limits: 50-150 %		Dilution: 1x						
LCS Dup (22F0123-BSD1)			Prepared: 06/03/22 05:26 Analyzed: 06/03/22 22:43									Q-19
NWTPH-Dx												
Diesel	1.10	0.100	0.200	mg/L	1	1.25	---	88	36-132%	0.2	30%	
Surr: o-Terphenyl (Surr)		Recovery: 97 %		Limits: 50-150 %		Dilution: 1x						

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9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Blank (22F0069-BLK1)			Prepared: 06/02/22 08:00 Analyzed: 06/02/22 11:26									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 99 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		105 %		50-150 %		"						
LCS (22F0069-BS2)			Prepared: 06/02/22 08:00 Analyzed: 06/02/22 10:59									
NWTPH-Gx (MS)												
Gasoline Range Organics	0.496	0.0500	0.100	mg/L	1	0.500	---	99	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		99 %		50-150 %		"						
Duplicate (22F0069-DUP1)			Prepared: 06/02/22 11:06 Analyzed: 06/02/22 12:47									
QC Source Sample: SW-1(052822) (A2F0009-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 101 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		106 %		50-150 %		"						
Duplicate (22F0069-DUP2)			Prepared: 06/02/22 11:06 Analyzed: 06/02/22 18:40									
QC Source Sample: Non-SDG (A2F0052-05)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 103 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		108 %		50-150 %		"						

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503-718-2323

ORELAP ID: OR100062

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9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Blank (22F0069-BLK1)			Prepared: 06/02/22 08:00		Analyzed: 06/02/22 11:26							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	25.0	25.0	ug/L	1	---	---	---	---	---	---	EST
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Blank (22F0069-BLK1)						Prepared: 06/02/22 08:00 Analyzed: 06/02/22 11:26						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x												

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Philip Nerenberg, Lab Director

Page 24 of 68



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Blank (22F0069-BLK1)			Prepared: 06/02/22 08:00		Analyzed: 06/02/22 11:26							
Surr: Toluene-d8 (Surr)		Recovery: 101 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
LCS (22F0069-BS1)			Prepared: 06/02/22 08:00		Analyzed: 06/02/22 10:26							
EPA 8260D												
Acetone	54.9	10.0	20.0	ug/L	1	40.0	---	137	80-120%	---	---	Q-56
Acrylonitrile	19.8	1.00	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
Benzene	19.6	0.100	0.200	ug/L	1	20.0	---	98	80-120%	---	---	
Bromobenzene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromodichloromethane	21.5	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromoform	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromomethane	26.6	5.00	5.00	ug/L	1	20.0	---	133	80-120%	---	---	Q-56
2-Butanone (MEK)	49.0	5.00	10.0	ug/L	1	40.0	---	123	80-120%	---	---	Q-56
n-Butylbenzene	24.1	0.500	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
sec-Butylbenzene	23.3	0.500	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
tert-Butylbenzene	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Carbon disulfide	30.4	5.00	10.0	ug/L	1	20.0	---	152	80-120%	---	---	Q-56
Carbon tetrachloride	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Chlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	49.9	25.0	25.0	ug/L	1	20.0	---	250	80-120%	---	---	Q-56, EST
Chloroform	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloromethane	24.7	2.50	5.00	ug/L	1	20.0	---	123	80-120%	---	---	Q-56
2-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Chlorotoluene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromochloromethane	22.7	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.7	2.50	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,3-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dichlorodifluoromethane	23.7	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
1,1-Dichloroethane	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
LCS (22F0069-BS1)						Prepared: 06/02/22 08:00 Analyzed: 06/02/22 10:26						
1,2-Dichloroethane (EDC)	21.0	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethene	32.2	0.200	0.400	ug/L	1	20.0	---	161	80-120%	---	---	Q-56
cis-1,2-Dichloroethene	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,2-Dichloroethene	21.0	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichloropropane	20.3	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,1-Dichloropropene	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
cis-1,3-Dichloropropene	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
trans-1,3-Dichloropropene	24.4	0.500	1.00	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
Ethylbenzene	21.4	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Hexachlorobutadiene	26.0	2.50	5.00	ug/L	1	20.0	---	130	80-120%	---	---	Q-56
2-Hexanone	44.8	5.00	10.0	ug/L	1	40.0	---	112	80-120%	---	---	
Isopropylbenzene	22.1	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
4-Isopropyltoluene	22.1	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Methylene chloride	20.6	5.00	10.0	ug/L	1	20.0	---	103	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	44.9	5.00	10.0	ug/L	1	40.0	---	112	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	18.7	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Naphthalene	18.0	1.00	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
n-Propylbenzene	21.5	0.250	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Styrene	22.1	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.6	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.3	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Tetrachloroethene (PCE)	21.0	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Toluene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,3-Trichlorobenzene	21.6	1.00	2.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2,4-Trichlorobenzene	22.0	1.00	2.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,1-Trichloroethane	21.4	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,2-Trichloroethane	20.1	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	31.1	1.00	2.00	ug/L	1	20.0	---	155	80-120%	---	---	Q-56
1,2,3-Trichloropropane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,4-Trimethylbenzene	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,3,5-Trimethylbenzene	21.1	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
LCS (22F0069-BS1)			Prepared: 06/02/22 08:00		Analyzed: 06/02/22 10:26							
Vinyl chloride	22.8	0.200	0.400	ug/L	1	20.0	---	114	80-120%	---	---	
m,p-Xylene	43.7	0.500	1.00	ug/L	1	40.0	---	109	80-120%	---	---	
o-Xylene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			Recovery: 98 %		Limits: 80-120 %		Dilution: 1x					
Toluene-d8 (Surr)			99 %		80-120 %		"					
4-Bromofluorobenzene (Surr)			92 %		80-120 %		"					
Duplicate (22F0069-DUP1)						Prepared: 06/02/22 11:06		Analyzed: 06/02/22 12:47				
QC Source Sample: SW-1(052822) (A2F0009-01)												
EPA 8260D												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	25.0	25.0	ug/L	1	---	ND	---	---	---	30%	EST
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Duplicate (22F0069-DUP1)			Prepared: 06/02/22 11:06 Analyzed: 06/02/22 12:47									
QC Source Sample: SW-1(052822) (A2F0009-01)												
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Duplicate (22F0069-DUP1)			Prepared: 06/02/22 11:06		Analyzed: 06/02/22 12:47							
QC Source Sample: SW-1(052822) (A2F0009-01)												
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
Duplicate (22F0069-DUP2)			Prepared: 06/02/22 11:06		Analyzed: 06/02/22 18:40							
QC Source Sample: Non-SDG (A2F0052-05)												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	25.0	25.0	ug/L	1	---	ND	---	---	---	30%	EST
Chloroform	2.46	0.500	1.00	ug/L	1	---	2.45	---	---	0.4	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Duplicate (22F0069-DUP2)			Prepared: 06/02/22 11:06 Analyzed: 06/02/22 18:40									
QC Source Sample: Non-SDG (A2F0052-05)												
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	0.920	0.250	0.500	ug/L	1	---	0.950	---	---	3	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

Page 30 of 68



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Duplicate (22F0069-DUP2)			Prepared: 06/02/22 11:06 Analyzed: 06/02/22 18:40									
QC Source Sample: Non-SDG (A2F0052-05)												
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						

Matrix Spike (22F0069-MS1)

Prepared: 06/02/22 11:06 Analyzed: 06/02/22 13:41

QC Source Sample: SW-2(052822) (A2F0009-02)

EPA 8260D

Acetone	50.5	10.0	20.0	ug/L	1	40.0	ND	126	39-160%	---	---	Q-54c
Acrylonitrile	20.9	1.00	2.00	ug/L	1	20.0	ND	104	63-135%	---	---	
Benzene	20.7	0.100	0.200	ug/L	1	20.0	ND	104	79-120%	---	---	
Bromobenzene	18.3	0.250	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
Bromochloromethane	23.0	0.500	1.00	ug/L	1	20.0	ND	115	78-123%	---	---	
Bromodichloromethane	22.5	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
Bromoform	19.6	0.500	1.00	ug/L	1	20.0	ND	98	66-130%	---	---	
Bromomethane	19.3	5.00	5.00	ug/L	1	20.0	ND	96	53-141%	---	---	Q-54a
2-Butanone (MEK)	44.4	5.00	10.0	ug/L	1	40.0	ND	111	56-143%	---	---	Q-54e
n-Butylbenzene	22.8	0.500	1.00	ug/L	1	20.0	ND	114	75-128%	---	---	
sec-Butylbenzene	22.9	0.500	1.00	ug/L	1	20.0	ND	114	77-126%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Matrix Spike (22F0069-MS1)			Prepared: 06/02/22 11:06		Analyzed: 06/02/22 13:41							
QC Source Sample: SW-2(052822) (A2F0009-02)												
tert-Butylbenzene	21.1	0.500	1.00	ug/L	1	20.0	ND	105	78-124%	---	---	
Carbon disulfide	28.1	5.00	10.0	ug/L	1	20.0	ND	140	64-133%	---	---	Q-54f
Carbon tetrachloride	24.8	0.500	1.00	ug/L	1	20.0	ND	124	72-136%	---	---	
Chlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Chloroethane	39.5	25.0	25.0	ug/L	1	20.0	ND	197	60-138%	---	---	Q-54b, EST
Chloroform	21.8	0.500	1.00	ug/L	1	20.0	ND	109	79-124%	---	---	
Chloromethane	30.8	2.50	5.00	ug/L	1	20.0	ND	154	50-139%	---	---	Q-54e
2-Chlorotoluene	19.8	0.500	1.00	ug/L	1	20.0	ND	99	79-122%	---	---	
4-Chlorotoluene	20.4	0.500	1.00	ug/L	1	20.0	ND	102	78-122%	---	---	
Dibromochloromethane	22.6	0.500	1.00	ug/L	1	20.0	ND	113	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.5	2.50	5.00	ug/L	1	20.0	ND	98	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.9	0.250	0.500	ug/L	1	20.0	ND	104	77-121%	---	---	
Dibromomethane	22.7	0.500	1.00	ug/L	1	20.0	ND	113	79-123%	---	---	
1,2-Dichlorobenzene	20.4	0.250	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
1,3-Dichlorobenzene	20.3	0.250	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
1,4-Dichlorobenzene	20.0	0.250	0.500	ug/L	1	20.0	ND	100	79-120%	---	---	
Dichlorodifluoromethane	24.6	0.500	1.00	ug/L	1	20.0	ND	123	32-152%	---	---	
1,1-Dichloroethane	22.0	0.200	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.9	0.200	0.400	ug/L	1	20.0	ND	110	73-128%	---	---	
1,1-Dichloroethene	31.0	0.200	0.400	ug/L	1	20.0	ND	155	71-131%	---	---	Q-54h
cis-1,2-Dichloroethene	21.1	0.200	0.400	ug/L	1	20.0	ND	106	78-123%	---	---	
trans-1,2-Dichloroethene	21.7	0.200	0.400	ug/L	1	20.0	ND	109	75-124%	---	---	
1,2-Dichloropropane	21.0	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
1,3-Dichloropropane	20.9	0.500	1.00	ug/L	1	20.0	ND	105	80-120%	---	---	
2,2-Dichloropropane	22.3	0.500	1.00	ug/L	1	20.0	ND	111	60-139%	---	---	
1,1-Dichloropropene	23.3	0.500	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
cis-1,3-Dichloropropene	19.8	0.500	1.00	ug/L	1	20.0	ND	99	75-124%	---	---	
trans-1,3-Dichloropropene	24.0	0.500	1.00	ug/L	1	20.0	ND	120	73-127%	---	---	Q-54d
Ethylbenzene	21.8	0.250	0.500	ug/L	1	20.0	ND	109	79-121%	---	---	
Hexachlorobutadiene	22.5	2.50	5.00	ug/L	1	20.0	ND	113	66-134%	---	---	Q-54
2-Hexanone	44.5	5.00	10.0	ug/L	1	40.0	ND	111	57-139%	---	---	
Isopropylbenzene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	72-131%	---	---	
4-Isopropyltoluene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	77-127%	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0069 - EPA 5030B						Water						
Matrix Spike (22F0069-MS1)				Prepared: 06/02/22 11:06		Analyzed: 06/02/22 13:41						
QC Source Sample: SW-2(052822) (A2F0009-02)												
Methylene chloride	21.1	5.00	10.0	ug/L	1	20.0	ND	106	74-124%	---	---	Q-54g
4-Methyl-2-pentanone (MiBK)	46.1	5.00	10.0	ug/L	1	40.0	ND	115	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	18.8	0.500	1.00	ug/L	1	20.0	ND	94	71-124%	---	---	
Naphthalene	18.0	1.00	2.00	ug/L	1	20.0	ND	90	61-128%	---	---	
n-Propylbenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	76-126%	---	---	
Styrene	22.3	0.500	1.00	ug/L	1	20.0	ND	111	78-123%	---	---	
1,1,1,2-Tetrachloroethane	22.2	0.200	0.400	ug/L	1	20.0	ND	111	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.7	0.250	0.500	ug/L	1	20.0	ND	104	71-121%	---	---	
Tetrachloroethene (PCE)	21.5	0.200	0.400	ug/L	1	20.0	ND	108	74-129%	---	---	
Toluene	20.4	0.500	1.00	ug/L	1	20.0	ND	102	80-121%	---	---	
1,2,3-Trichlorobenzene	21.4	1.00	2.00	ug/L	1	20.0	ND	107	69-129%	---	---	
1,2,4-Trichlorobenzene	21.0	1.00	2.00	ug/L	1	20.0	ND	105	69-130%	---	---	
1,1,1-Trichloroethane	22.4	0.200	0.400	ug/L	1	20.0	ND	112	74-131%	---	---	
1,1,2-Trichloroethane	20.6	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Trichloroethene (TCE)	20.6	0.200	0.400	ug/L	1	20.0	ND	103	79-123%	---	---	
Trichlorofluoromethane	34.3	1.00	2.00	ug/L	1	20.0	ND	172	65-141%	---	---	
1,2,3-Trichloropropane	19.7	0.500	1.00	ug/L	1	20.0	ND	99	73-122%	---	---	
1,2,4-Trimethylbenzene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	76-124%	---	---	
1,3,5-Trimethylbenzene	21.0	0.500	1.00	ug/L	1	20.0	ND	105	75-124%	---	---	
Vinyl chloride	23.6	0.200	0.400	ug/L	1	20.0	ND	118	58-137%	---	---	
m,p-Xylene	44.8	0.500	1.00	ug/L	1	40.0	ND	112	80-121%	---	---	
o-Xylene	21.0	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		96 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		90 %		80-120 %		"						

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0143 - EPA 5030B						Water						
Blank (22F0143-BLK1)			Prepared: 06/03/22 12:00 Analyzed: 06/03/22 16:06									
EPA 8260D SIM												
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		101 %		80-120 %		"						
LCS (22F0143-BS1)						Prepared: 06/03/22 12:00 Analyzed: 06/03/22 15:10						
EPA 8260D SIM												
Tetrachloroethene (PCE)	0.201	0.0100	0.0200	ug/L	1	0.200	---	101	80-120%	---	---	
Trichloroethene (TCE)	0.206	0.0100	0.0200	ug/L	1	0.200	---	103	80-120%	---	---	
Vinyl chloride	0.217	0.0100	0.0200	ug/L	1	0.200	---	108	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						
Duplicate (22F0143-DUP1)						Prepared: 06/03/22 13:30 Analyzed: 06/03/22 18:21						
QC Source Sample: Non-SDG (A2E0879-02)												
Tetrachloroethene (PCE)	ND	0.0100	0.0200	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	0.0427	0.0100	0.0200	ug/L	1	---	0.0380	---	---	12	30%	
Vinyl chloride	0.779	0.0100	0.0200	ug/L	1	---	0.684	---	---	13	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						
Matrix Spike (22F0143-MS1)						Prepared: 06/03/22 13:30 Analyzed: 06/03/22 18:47						
QC Source Sample: Non-SDG (A2E0879-02)												
EPA 8260D SIM												
Tetrachloroethene (PCE)	0.179	0.0100	0.0200	ug/L	1	0.200	ND	90	74-129%	---	---	
Trichloroethene (TCE)	0.216	0.0100	0.0200	ug/L	1	0.200	0.0380	89	79-123%	---	---	
Vinyl chloride	0.880	0.0100	0.0200	ug/L	1	0.200	0.684	98	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070

Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0143 - EPA 5030B						Water						
Matrix Spike (22F0143-MS1)			Prepared: 06/03/22 13:30 Analyzed: 06/03/22 18:47									
QC Source Sample: Non-SDG (A2E0879-02)												
Surr: Toluene-d8 (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

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Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0177 - EPA 3510C (Neutral pH)						Water						
Blank (22F0177-BLK1)			Prepared: 06/06/22 10:19		Analyzed: 06/07/22 17:51		C-07					
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1262	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1268	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 63 %		Limits: 40-135 %		Dilution: 1x						
LCS (22F0177-BS1)						Prepared: 06/06/22 10:19		Analyzed: 06/07/22 18:09		C-07		
EPA 8082A												
Aroclor 1016	0.832	0.0100	0.0200	ug/L	1	1.25	---	67	46-129%	---	---	
Aroclor 1260	0.931	0.0100	0.0200	ug/L	1	1.25	---	74	45-134%	---	---	
Surr: Decachlorobiphenyl (Surr)		Recovery: 58 %		Limits: 40-135 %		Dilution: 1x						
LCS Dup (22F0177-BSD1)						Prepared: 06/06/22 10:19		Analyzed: 06/07/22 18:26		C-07, Q-19		
EPA 8082A												
Aroclor 1016	0.870	0.0100	0.0200	ug/L	1	1.25	---	70	46-129%	4	30%	
Aroclor 1260	0.967	0.0100	0.0200	ug/L	1	1.25	---	77	45-134%	4	30%	
Surr: Decachlorobiphenyl (Surr)		Recovery: 59 %		Limits: 40-135 %		Dilution: 1x						

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ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (22F0121-BLK1)			Prepared: 06/03/22 05:24		Analyzed: 06/03/22 12:18							
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	0.0172	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	B-02, J
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	0.0175	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	B-02, J
Pyrene	0.0150	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	B-02, J
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (22F0121-BLK1)			Prepared: 06/03/22 05:24		Analyzed: 06/03/22 12:18							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	0.0354	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	B-02, J
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.14	2.27	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (22F0121-BLK1)			Prepared: 06/03/22 05:24		Analyzed: 06/03/22 12:18							
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	Q-52
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery:	89 %	Limits:	44-120 %		Dilution: 1x				
2-Fluorobiphenyl (Surr)				81 %		44-120 %		"				
Phenol-d6 (Surr)				28 %		10-133 %		"				
p-Terphenyl-d14 (Surr)				86 %		50-134 %		"				
2-Fluorophenol (Surr)				44 %		19-120 %		"				
2,4,6-Tribromophenol (Surr)				79 %		43-140 %		"				
LCS (22F0121-BS1)			Prepared: 06/03/22 05:24		Analyzed: 06/03/22 12:53							
EPA 8270E												
Acenaphthene	3.26	0.0400	0.0800	ug/L	4	4.00	---	82	47-122%	---	---	B-02
Acenaphthylene	3.44	0.0400	0.0800	ug/L	4	4.00	---	86	41-130%	---	---	
Anthracene	3.69	0.0400	0.0800	ug/L	4	4.00	---	92	57-123%	---	---	
Benz(a)anthracene	3.62	0.0400	0.0800	ug/L	4	4.00	---	91	58-125%	---	---	
Benzo(a)pyrene	3.99	0.0600	0.120	ug/L	4	4.00	---	100	54-128%	---	---	
Benzo(b)fluoranthene	3.82	0.0600	0.120	ug/L	4	4.00	---	96	53-131%	---	---	
Benzo(k)fluoranthene	4.06	0.0600	0.120	ug/L	4	4.00	---	102	57-129%	---	---	
Benzo(g,h,i)perylene	3.80	0.0400	0.0800	ug/L	4	4.00	---	95	50-134%	---	---	
Chrysene	3.62	0.0400	0.0800	ug/L	4	4.00	---	90	59-123%	---	---	
Dibenz(a,h)anthracene	3.63	0.0400	0.0800	ug/L	4	4.00	---	91	51-134%	---	---	
Fluoranthene	3.81	0.0400	0.0800	ug/L	4	4.00	---	95	57-128%	---	---	
Fluorene	3.42	0.0400	0.0800	ug/L	4	4.00	---	85	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.40	0.0400	0.0800	ug/L	4	4.00	---	85	52-134%	---	---	
1-Methylnaphthalene	2.96	0.0800	0.160	ug/L	4	4.00	---	74	41-120%	---	---	
2-Methylnaphthalene	2.98	0.0800	0.160	ug/L	4	4.00	---	75	40-121%	---	---	

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Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (22F0121-BS1)						Prepared: 06/03/22 05:24 Analyzed: 06/03/22 12:53						
Naphthalene	2.95	0.0800	0.160	ug/L	4	4.00	---	74	40-121%	---	---	
Phenanthrene	3.49	0.0400	0.0800	ug/L	4	4.00	---	87	59-120%	---	---	B-02
Pyrene	3.79	0.0400	0.0800	ug/L	4	4.00	---	95	57-126%	---	---	B-02
Carbazole	3.84	0.0600	0.120	ug/L	4	4.00	---	96	60-122%	---	---	
Dibenzofuran	3.47	0.0400	0.0800	ug/L	4	4.00	---	87	53-120%	---	---	
2-Chlorophenol	3.32	0.200	0.400	ug/L	4	4.00	---	83	38-120%	---	---	
4-Chloro-3-methylphenol	3.40	0.400	0.800	ug/L	4	4.00	---	85	52-120%	---	---	
2,4-Dichlorophenol	3.75	0.200	0.400	ug/L	4	4.00	---	94	47-121%	---	---	
2,4-Dimethylphenol	2.99	0.200	0.400	ug/L	4	4.00	---	75	31-124%	---	---	
2,4-Dinitrophenol	2.92	1.00	2.00	ug/L	4	4.00	---	73	23-143%	---	---	
4,6-Dinitro-2-methylphenol	3.91	1.00	2.00	ug/L	4	4.00	---	98	44-137%	---	---	
2-Methylphenol	3.11	0.100	0.200	ug/L	4	4.00	---	78	30-120%	---	---	
3+4-Methylphenol(s)	2.77	0.100	0.200	ug/L	4	4.00	---	69	29-120%	---	---	
2-Nitrophenol	4.36	0.400	0.800	ug/L	4	4.00	---	109	47-123%	---	---	Q-41
4-Nitrophenol	1.14	0.400	0.800	ug/L	4	4.00	---	28	10-120%	---	---	
Pentachlorophenol (PCP)	2.67	0.400	0.800	ug/L	4	4.00	---	67	35-138%	---	---	
Phenol	1.12	0.800	0.800	ug/L	4	4.00	---	28	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	3.42	0.200	0.400	ug/L	4	4.00	---	85	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	3.59	0.200	0.400	ug/L	4	4.00	---	90	50-121%	---	---	
2,4,5-Trichlorophenol	3.66	0.200	0.400	ug/L	4	4.00	---	91	53-123%	---	---	
2,4,6-Trichlorophenol	3.63	0.200	0.400	ug/L	4	4.00	---	91	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.61	0.800	1.60	ug/L	4	4.00	---	90	55-135%	---	---	
Butyl benzyl phthalate	3.73	0.800	1.60	ug/L	4	4.00	---	93	53-134%	---	---	
Diethylphthalate	3.67	0.800	1.60	ug/L	4	4.00	---	92	56-125%	---	---	
Dimethylphthalate	3.27	0.800	1.60	ug/L	4	4.00	---	82	45-127%	---	---	
Di-n-butylphthalate	3.95	0.800	1.60	ug/L	4	4.00	---	99	59-127%	---	---	
Di-n-octyl phthalate	3.74	0.800	1.60	ug/L	4	4.00	---	94	51-140%	---	---	
N-Nitrosodimethylamine	1.73	0.100	0.200	ug/L	4	4.00	---	43	19-120%	---	---	
N-Nitroso-di-n-propylamine	3.48	0.100	0.200	ug/L	4	4.00	---	87	49-120%	---	---	
N-Nitrosodiphenylamine	3.81	0.100	0.200	ug/L	4	4.00	---	95	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.51	0.100	0.200	ug/L	4	4.00	---	88	48-120%	---	---	
Bis(2-Chloroethyl) ether	3.22	0.100	0.200	ug/L	4	4.00	---	80	43-120%	---	---	B-02
2,2'-Oxybis(1-Chloropropane)	3.01	0.100	0.200	ug/L	4	4.00	---	75	41-120%	---	---	
Hexachlorobenzene	3.55	0.0400	0.0800	ug/L	4	4.00	---	89	53-125%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (22F0121-BS1)						Prepared: 06/03/22 05:24 Analyzed: 06/03/22 12:53						
Hexachlorobutadiene	2.10	0.100	0.200	ug/L	4	4.00	---	52	22-124%	---	---	Q-41
Hexachlorocyclopentadiene	2.49	0.200	0.400	ug/L	4	4.00	---	62	10-127%	---	---	
Hexachloroethane	2.09	0.100	0.200	ug/L	4	4.00	---	52	21-120%	---	---	
2-Chloronaphthalene	3.46	0.0400	0.0800	ug/L	4	4.00	---	86	40-120%	---	---	Q-31
1,2,4-Trichlorobenzene	2.50	0.100	0.200	ug/L	4	4.00	---	63	29-120%	---	---	
4-Bromophenyl phenyl ether	3.62	0.100	0.200	ug/L	4	4.00	---	91	55-124%	---	---	
4-Chlorophenyl phenyl ether	3.44	0.100	0.200	ug/L	4	4.00	---	86	53-121%	---	---	Q-31
Aniline	2.27	0.200	0.400	ug/L	4	4.00	---	57	10-120%	---	---	
4-Chloroaniline	2.95	0.100	0.200	ug/L	4	4.00	---	74	33-120%	---	---	
2-Nitroaniline	3.75	0.800	1.60	ug/L	4	4.00	---	94	55-127%	---	---	Q-29, Q-31
3-Nitroaniline	3.34	0.800	1.60	ug/L	4	4.00	---	83	41-128%	---	---	
4-Nitroaniline	3.50	0.800	1.60	ug/L	4	4.00	---	87	25-120%	---	---	
Nitrobenzene	3.46	0.400	0.800	ug/L	4	4.00	---	87	45-121%	---	---	Q-29, Q-31
2,4-Dinitrotoluene	3.59	0.400	0.800	ug/L	4	4.00	---	90	57-128%	---	---	
2,6-Dinitrotoluene	3.79	0.400	0.800	ug/L	4	4.00	---	95	57-124%	---	---	
Benzoic acid	3.80	2.00	2.00	ug/L	4	8.00	---	47	10-120%	---	---	Q-29, Q-31
Benzyl alcohol	2.36	0.400	0.800	ug/L	4	4.00	---	59	31-120%	---	---	
Isophorone	3.18	0.100	0.200	ug/L	4	4.00	---	80	42-124%	---	---	
Azobenzene (1,2-DPH)	3.47	0.100	0.200	ug/L	4	4.00	---	87	61-120%	---	---	Q-29, Q-31
Bis(2-Ethylhexyl) adipate	3.73	1.00	2.00	ug/L	4	4.00	---	93	63-121%	---	---	
3,3'-Dichlorobenzidine	10.6	2.00	4.00	ug/L	4	8.00	---	132	27-129%	---	---	
1,2-Dinitrobenzene	3.56	1.00	2.00	ug/L	4	4.00	---	89	59-120%	---	---	Q-29, Q-31
1,3-Dinitrobenzene	3.61	1.00	2.00	ug/L	4	4.00	---	90	49-128%	---	---	
1,4-Dinitrobenzene	3.99	1.00	2.00	ug/L	4	4.00	---	100	54-120%	---	---	
Pyridine	1.43	0.400	0.800	ug/L	4	4.00	---	36	10-120%	---	---	Q-29, Q-31
1,2-Dichlorobenzene	2.45	0.100	0.200	ug/L	4	4.00	---	61	32-120%	---	---	
1,3-Dichlorobenzene	2.17	0.100	0.200	ug/L	4	4.00	---	54	28-120%	---	---	
1,4-Dichlorobenzene	2.28	0.100	0.200	ug/L	4	4.00	---	57	29-120%	---	---	Q-29, Q-31
Surr: Nitrobenzene-d5 (Surr)			Recovery: 90 %	Limits: 44-120 %	Dilution: 4x							
2-Fluorobiphenyl (Surr)			96 %	44-120 %	"							
Phenol-d6 (Surr)			28 %	10-133 %	"							Q-29, Q-31
p-Terphenyl-d14 (Surr)			102 %	50-134 %	"							
2-Fluorophenol (Surr)			46 %	19-120 %	"							
2,4,6-Tribromophenol (Surr)			97 %	43-140 %	"							Q-29, Q-31

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Philip Nerenberg, Lab Director

Page 41 of 68



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (22F0121-BSD1)			Prepared: 06/03/22 05:24 Analyzed: 06/03/22 13:27					Q-19				
EPA 8270E												
Acenaphthene	3.27	0.0400	0.0800	ug/L	4	4.00	---	82	47-122%	0.3	30%	
Acenaphthylene	3.52	0.0400	0.0800	ug/L	4	4.00	---	88	41-130%	2	30%	
Anthracene	3.79	0.0400	0.0800	ug/L	4	4.00	---	95	57-123%	3	30%	
Benz(a)anthracene	3.70	0.0400	0.0800	ug/L	4	4.00	---	92	58-125%	2	30%	
Benzo(a)pyrene	4.16	0.0600	0.120	ug/L	4	4.00	---	104	54-128%	4	30%	
Benzo(b)fluoranthene	4.07	0.0600	0.120	ug/L	4	4.00	---	102	53-131%	6	30%	
Benzo(k)fluoranthene	4.06	0.0600	0.120	ug/L	4	4.00	---	101	57-129%	0.1	30%	
Benzo(g,h,i)perylene	3.84	0.0400	0.0800	ug/L	4	4.00	---	96	50-134%	1	30%	
Chrysene	3.69	0.0400	0.0800	ug/L	4	4.00	---	92	59-123%	2	30%	
Dibenz(a,h)anthracene	3.72	0.0400	0.0800	ug/L	4	4.00	---	93	51-134%	2	30%	
Fluoranthene	3.93	0.0400	0.0800	ug/L	4	4.00	---	98	57-128%	3	30%	B-02
Fluorene	3.36	0.0400	0.0800	ug/L	4	4.00	---	84	52-124%	2	30%	
Indeno(1,2,3-cd)pyrene	3.43	0.0400	0.0800	ug/L	4	4.00	---	86	52-134%	0.8	30%	
1-Methylnaphthalene	2.82	0.0800	0.160	ug/L	4	4.00	---	70	41-120%	5	30%	
2-Methylnaphthalene	2.82	0.0800	0.160	ug/L	4	4.00	---	70	40-121%	6	30%	
Naphthalene	2.77	0.0800	0.160	ug/L	4	4.00	---	69	40-121%	6	30%	
Phenanthrene	3.55	0.0400	0.0800	ug/L	4	4.00	---	89	59-120%	2	30%	B-02
Pyrene	3.92	0.0400	0.0800	ug/L	4	4.00	---	98	57-126%	3	30%	B-02
Carbazole	3.94	0.0600	0.120	ug/L	4	4.00	---	98	60-122%	3	30%	
Dibenzofuran	3.52	0.0400	0.0800	ug/L	4	4.00	---	88	53-120%	1	30%	
2-Chlorophenol	3.20	0.200	0.400	ug/L	4	4.00	---	80	38-120%	4	30%	
4-Chloro-3-methylphenol	3.24	0.400	0.800	ug/L	4	4.00	---	81	52-120%	5	30%	
2,4-Dichlorophenol	3.87	0.200	0.400	ug/L	4	4.00	---	97	47-121%	3	30%	
2,4-Dimethylphenol	2.80	0.200	0.400	ug/L	4	4.00	---	70	31-124%	7	30%	
2,4-Dinitrophenol	3.13	1.00	2.00	ug/L	4	4.00	---	78	23-143%	7	30%	
4,6-Dinitro-2-methylphenol	4.04	1.00	2.00	ug/L	4	4.00	---	101	44-137%	3	30%	
2-Methylphenol	2.92	0.100	0.200	ug/L	4	4.00	---	73	30-120%	7	30%	
3+4-Methylphenol(s)	2.68	0.100	0.200	ug/L	4	4.00	---	67	29-120%	3	30%	
2-Nitrophenol	4.49	0.400	0.800	ug/L	4	4.00	---	112	47-123%	3	30%	Q-41
4-Nitrophenol	1.08	0.400	0.800	ug/L	4	4.00	---	27	10-120%	5	30%	
Pentachlorophenol (PCP)	2.93	0.400	0.800	ug/L	4	4.00	---	73	35-138%	9	30%	
Phenol	1.35	0.800	0.800	ug/L	4	4.00	---	34	10-120%	19	30%	
2,3,4,6-Tetrachlorophenol	3.47	0.200	0.400	ug/L	4	4.00	---	87	50-128%	1	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (22F0121-BSD1)						Prepared: 06/03/22 05:24 Analyzed: 06/03/22 13:27						Q-19
2,3,5,6-Tetrachlorophenol	3.68	0.200	0.400	ug/L	4	4.00	---	92	50-121%	2	30%	
2,4,5-Trichlorophenol	3.66	0.200	0.400	ug/L	4	4.00	---	91	53-123%	0.02	30%	
2,4,6-Trichlorophenol	3.80	0.200	0.400	ug/L	4	4.00	---	95	50-125%	5	30%	
Bis(2-ethylhexyl)phthalate	3.70	0.800	1.60	ug/L	4	4.00	---	93	55-135%	3	30%	
Butyl benzyl phthalate	3.91	0.800	1.60	ug/L	4	4.00	---	98	53-134%	5	30%	
Diethylphthalate	3.72	0.800	1.60	ug/L	4	4.00	---	93	56-125%	1	30%	
Dimethylphthalate	3.42	0.800	1.60	ug/L	4	4.00	---	85	45-127%	4	30%	
Di-n-butylphthalate	4.10	0.800	1.60	ug/L	4	4.00	---	102	59-127%	4	30%	
Di-n-octyl phthalate	3.93	0.800	1.60	ug/L	4	4.00	---	98	51-140%	5	30%	
N-Nitrosodimethylamine	1.45	0.100	0.200	ug/L	4	4.00	---	36	19-120%	18	30%	
N-Nitroso-di-n-propylamine	3.35	0.100	0.200	ug/L	4	4.00	---	84	49-120%	4	30%	
N-Nitrosodiphenylamine	3.93	0.100	0.200	ug/L	4	4.00	---	98	51-123%	3	30%	
Bis(2-Chloroethoxy) methane	3.78	0.100	0.200	ug/L	4	4.00	---	95	48-120%	7	30%	
Bis(2-Chloroethyl) ether	3.16	0.100	0.200	ug/L	4	4.00	---	79	43-120%	2	30%	B-02
2,2'-Oxybis(1-Chloropropane)	2.95	0.100	0.200	ug/L	4	4.00	---	74	41-120%	2	30%	
Hexachlorobenzene	3.68	0.0400	0.0800	ug/L	4	4.00	---	92	53-125%	4	30%	
Hexachlorobutadiene	2.07	0.100	0.200	ug/L	4	4.00	---	52	22-124%	1	30%	
Hexachlorocyclopentadiene	2.61	0.200	0.400	ug/L	4	4.00	---	65	10-127%	4	30%	Q-41
Hexachloroethane	2.01	0.100	0.200	ug/L	4	4.00	---	50	21-120%	4	30%	
2-Chloronaphthalene	3.49	0.0400	0.0800	ug/L	4	4.00	---	87	40-120%	0.8	30%	
1,2,4-Trichlorobenzene	2.48	0.100	0.200	ug/L	4	4.00	---	62	29-120%	0.7	30%	
4-Bromophenyl phenyl ether	3.73	0.100	0.200	ug/L	4	4.00	---	93	55-124%	3	30%	
4-Chlorophenyl phenyl ether	3.49	0.100	0.200	ug/L	4	4.00	---	87	53-121%	1	30%	
Aniline	2.27	0.200	0.400	ug/L	4	4.00	---	57	10-120%	0.004	30%	Q-31
4-Chloroaniline	3.21	0.100	0.200	ug/L	4	4.00	---	80	33-120%	8	30%	
2-Nitroaniline	3.76	0.800	1.60	ug/L	4	4.00	---	94	55-127%	0.09	30%	
3-Nitroaniline	3.37	0.800	1.60	ug/L	4	4.00	---	84	41-128%	1	30%	
4-Nitroaniline	3.51	0.800	1.60	ug/L	4	4.00	---	88	25-120%	0.3	30%	
Nitrobenzene	3.40	0.400	0.800	ug/L	4	4.00	---	85	45-121%	2	30%	
2,4-Dinitrotoluene	3.69	0.400	0.800	ug/L	4	4.00	---	92	57-128%	3	30%	
2,6-Dinitrotoluene	3.82	0.400	0.800	ug/L	4	4.00	---	95	57-124%	0.8	30%	
Benzoic acid	3.81	2.00	2.00	ug/L	4	8.00	---	48	10-120%	0.3	30%	
Benzyl alcohol	2.38	0.400	0.800	ug/L	4	4.00	---	59	31-120%	0.9	30%	
Isophorone	3.21	0.100	0.200	ug/L	4	4.00	---	80	42-124%	0.8	30%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street

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503-718-2323

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NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0121 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (22F0121-BSD1)					Prepared: 06/03/22 05:24 Analyzed: 06/03/22 13:27						Q-19	
Azobenzene (1,2-DPH)	3.63	0.100	0.200	ug/L	4	4.00	---	91	61-120%	4	30%	
Bis(2-Ethylhexyl) adipate	3.85	1.00	2.00	ug/L	4	4.00	---	96	63-121%	3	30%	
3,3'-Dichlorobenzidine	10.3	2.00	4.00	ug/L	4	8.00	---	128	27-129%	3	30%	Q-31
1,2-Dinitrobenzene	3.55	1.00	2.00	ug/L	4	4.00	---	89	59-120%	0.3	30%	
1,3-Dinitrobenzene	3.69	1.00	2.00	ug/L	4	4.00	---	92	49-128%	2	30%	
1,4-Dinitrobenzene	4.02	1.00	2.00	ug/L	4	4.00	---	101	54-120%	0.7	30%	
Pyridine	1.22	0.400	0.800	ug/L	4	4.00	---	31	10-120%	16	30%	
1,2-Dichlorobenzene	2.23	0.100	0.200	ug/L	4	4.00	---	56	32-120%	9	30%	
1,3-Dichlorobenzene	2.07	0.100	0.200	ug/L	4	4.00	---	52	28-120%	5	30%	
1,4-Dichlorobenzene	2.09	0.100	0.200	ug/L	4	4.00	---	52	29-120%	9	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>												
			Recovery:	89 %	Limits:	44-120 %	Dilution:	4x				
<i>2-Fluorobiphenyl (Surr)</i>				96 %		44-120 %		"				
<i>Phenol-d6 (Surr)</i>				27 %		10-133 %		"				
<i>p-Terphenyl-d14 (Surr)</i>				100 %		50-134 %		"				
<i>2-Fluorophenol (Surr)</i>				37 %		19-120 %		"				
<i>2,4,6-Tribromophenol (Surr)</i>				97 %		43-140 %		"				

Apex Laboratories

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

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9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (22F0210-BLK1)			Prepared: 06/07/22 07:16 Analyzed: 06/07/22 17:06									
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Phenol	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (22F0210-BLK1)			Prepared: 06/07/22 07:16		Analyzed: 06/07/22 17:06							
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.0455	0.0909	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	0.182	0.364	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	1.14	2.27	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
Blank (22F0210-BLK1)			Prepared: 06/07/22 07:16		Analyzed: 06/07/22 17:06							
Azobenzene (1,2-DPH)	0.0267	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	B-02, J
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	0.0909	0.182	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)												Q-41
			Recovery:	96 %	Limits:	44-120 %	Dilution:			1x		
2-Fluorobiphenyl (Surr)				68 %		44-120 %				"		
Phenol-d6 (Surr)				25 %		10-133 %				"		
p-Terphenyl-d14 (Surr)				93 %		50-134 %				"		
2-Fluorophenol (Surr)				40 %		19-120 %				"		
2,4,6-Tribromophenol (Surr)				75 %		43-140 %				"		
LCS (22F0210-BS1)			Prepared: 06/07/22 07:16		Analyzed: 06/07/22 17:42							
EPA 8270E												
Acenaphthene	2.72	0.0100	0.0200	ug/L	1	4.00	---	68	47-122%	---	---	
Acenaphthylene	3.07	0.0100	0.0200	ug/L	1	4.00	---	77	41-130%	---	---	
Anthracene	3.35	0.0100	0.0200	ug/L	1	4.00	---	84	57-123%	---	---	
Benz(a)anthracene	3.52	0.0100	0.0200	ug/L	1	4.00	---	88	58-125%	---	---	
Benzo(a)pyrene	3.93	0.0150	0.0300	ug/L	1	4.00	---	98	54-128%	---	---	
Benzo(b)fluoranthene	3.57	0.0150	0.0300	ug/L	1	4.00	---	89	53-131%	---	---	
Benzo(k)fluoranthene	3.68	0.0150	0.0300	ug/L	1	4.00	---	92	57-129%	---	---	
Benzo(g,h,i)perylene	3.48	0.0100	0.0200	ug/L	1	4.00	---	87	50-134%	---	---	
Chrysene	3.40	0.0100	0.0200	ug/L	1	4.00	---	85	59-123%	---	---	
Dibenz(a,h)anthracene	3.55	0.0100	0.0200	ug/L	1	4.00	---	89	51-134%	---	---	
Fluoranthene	3.48	0.0100	0.0200	ug/L	1	4.00	---	87	57-128%	---	---	
Fluorene	2.86	0.0100	0.0200	ug/L	1	4.00	---	71	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	3.33	0.0100	0.0200	ug/L	1	4.00	---	83	52-134%	---	---	
1-Methylnaphthalene	2.25	0.0200	0.0400	ug/L	1	4.00	---	56	41-120%	---	---	
2-Methylnaphthalene	2.22	0.0200	0.0400	ug/L	1	4.00	---	55	40-121%	---	---	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (22F0210-BS1)						Prepared: 06/07/22 07:16 Analyzed: 06/07/22 17:42						
Naphthalene	2.35	0.0200	0.0400	ug/L	1	4.00	---	59	40-121%	---	---	
Phenanthrene	3.14	0.0100	0.0200	ug/L	1	4.00	---	79	59-120%	---	---	
Pyrene	3.34	0.0100	0.0200	ug/L	1	4.00	---	83	57-126%	---	---	
Carbazole	3.40	0.0150	0.0300	ug/L	1	4.00	---	85	60-122%	---	---	
Dibenzofuran	2.69	0.0100	0.0200	ug/L	1	4.00	---	67	53-120%	---	---	
2-Chlorophenol	2.89	0.0500	0.100	ug/L	1	4.00	---	72	38-120%	---	---	
4-Chloro-3-methylphenol	2.89	0.100	0.200	ug/L	1	4.00	---	72	52-120%	---	---	
2,4-Dichlorophenol	2.74	0.0500	0.100	ug/L	1	4.00	---	69	47-121%	---	---	
2,4-Dimethylphenol	2.52	0.0500	0.100	ug/L	1	4.00	---	63	31-124%	---	---	
2,4-Dinitrophenol	2.91	0.250	0.500	ug/L	1	4.00	---	73	23-143%	---	---	
4,6-Dinitro-2-methylphenol	2.83	0.250	0.500	ug/L	1	4.00	---	71	44-137%	---	---	
2-Methylphenol	2.51	0.0250	0.0500	ug/L	1	4.00	---	63	30-120%	---	---	
3+4-Methylphenol(s)	2.19	0.0250	0.0500	ug/L	1	4.00	---	55	29-120%	---	---	
2-Nitrophenol	2.90	0.100	0.200	ug/L	1	4.00	---	73	47-123%	---	---	
4-Nitrophenol	0.845	0.100	0.200	ug/L	1	4.00	---	21	10-120%	---	---	Q-31
Pentachlorophenol (PCP)	2.64	0.100	0.200	ug/L	1	4.00	---	66	35-138%	---	---	Q-31
Phenol	1.22	0.200	0.400	ug/L	1	4.00	---	31	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	2.73	0.0500	0.100	ug/L	1	4.00	---	68	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	2.61	0.0500	0.100	ug/L	1	4.00	---	65	50-121%	---	---	
2,4,5-Trichlorophenol	2.77	0.0500	0.100	ug/L	1	4.00	---	69	53-123%	---	---	
2,4,6-Trichlorophenol	2.98	0.0500	0.100	ug/L	1	4.00	---	75	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.60	0.200	0.400	ug/L	1	4.00	---	90	55-135%	---	---	
Butyl benzyl phthalate	3.97	0.200	0.400	ug/L	1	4.00	---	99	53-134%	---	---	
Diethylphthalate	3.40	0.200	0.400	ug/L	1	4.00	---	85	56-125%	---	---	
Dimethylphthalate	3.21	0.200	0.400	ug/L	1	4.00	---	80	45-127%	---	---	
Di-n-butylphthalate	3.98	0.200	0.400	ug/L	1	4.00	---	99	59-127%	---	---	
Di-n-octyl phthalate	4.25	0.200	0.400	ug/L	1	4.00	---	106	51-140%	---	---	
N-Nitrosodimethylamine	2.02	0.0250	0.0500	ug/L	1	4.00	---	50	19-120%	---	---	
N-Nitroso-di-n-propylamine	3.81	0.0250	0.0500	ug/L	1	4.00	---	95	49-120%	---	---	Q-41
N-Nitrosodiphenylamine	3.39	0.0250	0.0500	ug/L	1	4.00	---	85	51-123%	---	---	
Bis(2-Chloroethoxy) methane	3.29	0.0250	0.0500	ug/L	1	4.00	---	82	48-120%	---	---	
Bis(2-Chloroethyl) ether	3.29	0.0250	0.0500	ug/L	1	4.00	---	82	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	3.91	0.0250	0.0500	ug/L	1	4.00	---	98	41-120%	---	---	Q-41
Hexachlorobenzene	3.04	0.0100	0.0200	ug/L	1	4.00	---	76	53-125%	---	---	

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ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
LCS (22F0210-BS1)						Prepared: 06/07/22 07:16 Analyzed: 06/07/22 17:42						
Hexachlorobutadiene	1.63	0.0250	0.0500	ug/L	1	4.00	---	41	22-124%	---	---	
Hexachlorocyclopentadiene	1.71	0.0500	0.100	ug/L	1	4.00	---	43	10-127%	---	---	
Hexachloroethane	1.89	0.0250	0.0500	ug/L	1	4.00	---	47	21-120%	---	---	
2-Chloronaphthalene	2.52	0.0100	0.0200	ug/L	1	4.00	---	63	40-120%	---	---	
1,2,4-Trichlorobenzene	1.92	0.0250	0.0500	ug/L	1	4.00	---	48	29-120%	---	---	
4-Bromophenyl phenyl ether	3.13	0.0250	0.0500	ug/L	1	4.00	---	78	55-124%	---	---	
4-Chlorophenyl phenyl ether	2.63	0.0250	0.0500	ug/L	1	4.00	---	66	53-121%	---	---	
Aniline	2.38	0.0500	0.100	ug/L	1	4.00	---	60	10-120%	---	---	
4-Chloroaniline	1.61	0.0250	0.0500	ug/L	1	4.00	---	40	33-120%	---	---	
2-Nitroaniline	3.10	0.200	0.400	ug/L	1	4.00	---	78	55-127%	---	---	
3-Nitroaniline	2.71	0.200	0.400	ug/L	1	4.00	---	68	41-128%	---	---	
4-Nitroaniline	1.49	0.200	0.400	ug/L	1	4.00	---	37	25-120%	---	---	
Nitrobenzene	3.57	0.100	0.200	ug/L	1	4.00	---	89	45-121%	---	---	Q-41
2,4-Dinitrotoluene	3.17	0.100	0.200	ug/L	1	4.00	---	79	57-128%	---	---	
2,6-Dinitrotoluene	3.09	0.100	0.200	ug/L	1	4.00	---	77	57-124%	---	---	
Benzoic acid	2.31	1.25	1.25	ug/L	1	8.00	---	29	10-120%	---	---	
Benzyl alcohol	2.61	0.100	0.200	ug/L	1	4.00	---	65	31-120%	---	---	
Isophorone	3.69	0.0250	0.0500	ug/L	1	4.00	---	92	42-124%	---	---	
Azobenzene (1,2-DPH)	4.53	0.0250	0.0500	ug/L	1	4.00	---	113	61-120%	---	---	B-02, Q-41
Bis(2-Ethylhexyl) adipate	3.93	0.250	0.500	ug/L	1	4.00	---	98	63-121%	---	---	
3,3'-Dichlorobenzidine	14.1	0.500	1.00	ug/L	1	8.00	---	177	27-129%	---	---	Q-29, Q-41, E
1,2-Dinitrobenzene	3.10	0.250	0.500	ug/L	1	4.00	---	78	59-120%	---	---	
1,3-Dinitrobenzene	2.96	0.250	0.500	ug/L	1	4.00	---	74	49-128%	---	---	
1,4-Dinitrobenzene	3.04	0.250	0.500	ug/L	1	4.00	---	76	54-120%	---	---	
Pyridine	1.58	0.100	0.200	ug/L	1	4.00	---	39	10-120%	---	---	
1,2-Dichlorobenzene	1.87	0.0250	0.0500	ug/L	1	4.00	---	47	32-120%	---	---	
1,3-Dichlorobenzene	1.78	0.0250	0.0500	ug/L	1	4.00	---	44	28-120%	---	---	
1,4-Dichlorobenzene	1.86	0.0250	0.0500	ug/L	1	4.00	---	46	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 97 %	Limits: 44-120 %	Dilution: 1x							Q-41
2-Fluorobiphenyl (Surr)			78 %	44-120 %	"							
Phenol-d6 (Surr)			27 %	10-133 %	"							
p-Terphenyl-d14 (Surr)			93 %	50-134 %	"							
2-Fluorophenol (Surr)			43 %	19-120 %	"							
2,4,6-Tribromophenol (Surr)			83 %	43-140 %	"							

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (22F0210-BSD1)			Prepared: 06/07/22 07:16 Analyzed: 06/07/22 18:18						Q-19			
EPA 8270E												
Acenaphthene	2.66	0.0100	0.0200	ug/L	1	4.00	---	67	47-122%	2	30%	
Acenaphthylene	3.04	0.0100	0.0200	ug/L	1	4.00	---	76	41-130%	1	30%	
Anthracene	3.36	0.0100	0.0200	ug/L	1	4.00	---	84	57-123%	0.4	30%	
Benz(a)anthracene	3.57	0.0100	0.0200	ug/L	1	4.00	---	89	58-125%	1	30%	
Benzo(a)pyrene	3.98	0.0150	0.0300	ug/L	1	4.00	---	100	54-128%	1	30%	
Benzo(b)fluoranthene	3.76	0.0150	0.0300	ug/L	1	4.00	---	94	53-131%	5	30%	
Benzo(k)fluoranthene	3.76	0.0150	0.0300	ug/L	1	4.00	---	94	57-129%	2	30%	
Benzo(g,h,i)perylene	3.53	0.0100	0.0200	ug/L	1	4.00	---	88	50-134%	2	30%	
Chrysene	3.38	0.0100	0.0200	ug/L	1	4.00	---	85	59-123%	0.7	30%	
Dibenz(a,h)anthracene	3.55	0.0100	0.0200	ug/L	1	4.00	---	89	51-134%	0.08	30%	
Fluoranthene	3.44	0.0100	0.0200	ug/L	1	4.00	---	86	57-128%	1	30%	
Fluorene	2.84	0.0100	0.0200	ug/L	1	4.00	---	71	52-124%	0.7	30%	
Indeno(1,2,3-cd)pyrene	3.43	0.0100	0.0200	ug/L	1	4.00	---	86	52-134%	3	30%	
1-Methylnaphthalene	2.12	0.0200	0.0400	ug/L	1	4.00	---	53	41-120%	6	30%	
2-Methylnaphthalene	2.08	0.0200	0.0400	ug/L	1	4.00	---	52	40-121%	6	30%	
Naphthalene	2.19	0.0200	0.0400	ug/L	1	4.00	---	55	40-121%	7	30%	
Phenanthrene	3.19	0.0100	0.0200	ug/L	1	4.00	---	80	59-120%	2	30%	
Pyrene	3.36	0.0100	0.0200	ug/L	1	4.00	---	84	57-126%	0.7	30%	
Carbazole	3.48	0.0150	0.0300	ug/L	1	4.00	---	87	60-122%	2	30%	
Dibenzofuran	2.66	0.0100	0.0200	ug/L	1	4.00	---	66	53-120%	1	30%	
2-Chlorophenol	2.92	0.0500	0.100	ug/L	1	4.00	---	73	38-120%	1	30%	
4-Chloro-3-methylphenol	2.96	0.100	0.200	ug/L	1	4.00	---	74	52-120%	2	30%	
2,4-Dichlorophenol	2.84	0.0500	0.100	ug/L	1	4.00	---	71	47-121%	4	30%	
2,4-Dimethylphenol	2.71	0.0500	0.100	ug/L	1	4.00	---	68	31-124%	7	30%	
2,4-Dinitrophenol	2.89	0.250	0.500	ug/L	1	4.00	---	72	23-143%	0.9	30%	
4,6-Dinitro-2-methylphenol	2.82	0.250	0.500	ug/L	1	4.00	---	70	44-137%	0.4	30%	
2-Methylphenol	2.58	0.0250	0.0500	ug/L	1	4.00	---	64	30-120%	3	30%	
3+4-Methylphenol(s)	2.26	0.0250	0.0500	ug/L	1	4.00	---	57	29-120%	3	30%	
2-Nitrophenol	2.97	0.100	0.200	ug/L	1	4.00	---	74	47-123%	2	30%	
4-Nitrophenol	0.882	0.100	0.200	ug/L	1	4.00	---	22	10-120%	4	30%	Q-31
Pentachlorophenol (PCP)	2.61	0.100	0.200	ug/L	1	4.00	---	65	35-138%	1	30%	Q-31
Phenol	1.31	0.200	0.400	ug/L	1	4.00	---	33	10-120%	7	30%	
2,3,4,6-Tetrachlorophenol	2.74	0.0500	0.100	ug/L	1	4.00	---	69	50-128%	0.5	30%	

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (22F0210-BSD1)						Prepared: 06/07/22 07:16 Analyzed: 06/07/22 18:18						Q-19
2,3,5,6-Tetrachlorophenol	2.62	0.0500	0.100	ug/L	1	4.00	---	65	50-121%	0.06	30%	
2,4,5-Trichlorophenol	2.80	0.0500	0.100	ug/L	1	4.00	---	70	53-123%	0.8	30%	
2,4,6-Trichlorophenol	3.03	0.0500	0.100	ug/L	1	4.00	---	76	50-125%	2	30%	
Bis(2-ethylhexyl)phthalate	3.71	0.200	0.400	ug/L	1	4.00	---	93	55-135%	3	30%	
Butyl benzyl phthalate	3.87	0.200	0.400	ug/L	1	4.00	---	97	53-134%	3	30%	
Diethylphthalate	3.39	0.200	0.400	ug/L	1	4.00	---	85	56-125%	0.3	30%	
Dimethylphthalate	3.20	0.200	0.400	ug/L	1	4.00	---	80	45-127%	0.5	30%	
Di-n-butylphthalate	3.96	0.200	0.400	ug/L	1	4.00	---	99	59-127%	0.5	30%	
Di-n-octyl phthalate	4.33	0.200	0.400	ug/L	1	4.00	---	108	51-140%	2	30%	
N-Nitrosodimethylamine	2.09	0.0250	0.0500	ug/L	1	4.00	---	52	19-120%	4	30%	
N-Nitroso-di-n-propylamine	3.88	0.0250	0.0500	ug/L	1	4.00	---	97	49-120%	2	30%	Q-41
N-Nitrosodiphenylamine	3.48	0.0250	0.0500	ug/L	1	4.00	---	87	51-123%	3	30%	
Bis(2-Chloroethoxy) methane	3.37	0.0250	0.0500	ug/L	1	4.00	---	84	48-120%	2	30%	
Bis(2-Chloroethyl) ether	3.38	0.0250	0.0500	ug/L	1	4.00	---	84	43-120%	2	30%	
2,2'-Oxybis(1-Chloropropane)	3.92	0.0250	0.0500	ug/L	1	4.00	---	98	41-120%	0.09	30%	Q-41
Hexachlorobenzene	3.11	0.0100	0.0200	ug/L	1	4.00	---	78	53-125%	2	30%	
Hexachlorobutadiene	1.34	0.0250	0.0500	ug/L	1	4.00	---	34	22-124%	20	30%	
Hexachlorocyclopentadiene	1.40	0.0500	0.100	ug/L	1	4.00	---	35	10-127%	20	30%	
Hexachloroethane	1.59	0.0250	0.0500	ug/L	1	4.00	---	40	21-120%	17	30%	
2-Chloronaphthalene	2.37	0.0100	0.0200	ug/L	1	4.00	---	59	40-120%	6	30%	
1,2,4-Trichlorobenzene	1.70	0.0250	0.0500	ug/L	1	4.00	---	42	29-120%	13	30%	
4-Bromophenyl phenyl ether	3.11	0.0250	0.0500	ug/L	1	4.00	---	78	55-124%	0.7	30%	
4-Chlorophenyl phenyl ether	2.58	0.0250	0.0500	ug/L	1	4.00	---	64	53-121%	2	30%	
Aniline	2.68	0.0500	0.100	ug/L	1	4.00	---	67	10-120%	12	30%	
4-Chloroaniline	2.05	0.0250	0.0500	ug/L	1	4.00	---	51	33-120%	24	30%	
2-Nitroaniline	3.14	0.200	0.400	ug/L	1	4.00	---	78	55-127%	1	30%	
3-Nitroaniline	2.96	0.200	0.400	ug/L	1	4.00	---	74	41-128%	9	30%	
4-Nitroaniline	1.75	0.200	0.400	ug/L	1	4.00	---	44	25-120%	16	30%	
Nitrobenzene	3.69	0.100	0.200	ug/L	1	4.00	---	92	45-121%	3	30%	Q-41
2,4-Dinitrotoluene	3.18	0.100	0.200	ug/L	1	4.00	---	80	57-128%	0.2	30%	
2,6-Dinitrotoluene	3.15	0.100	0.200	ug/L	1	4.00	---	79	57-124%	2	30%	
Benzoic acid	2.25	1.25	1.25	ug/L	1	8.00	---	28	10-120%	2	30%	
Benzyl alcohol	2.69	0.100	0.200	ug/L	1	4.00	---	67	31-120%	3	30%	
Isophorone	3.72	0.0250	0.0500	ug/L	1	4.00	---	93	42-124%	0.7	30%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0210 - EPA 3510C (Acid/Base Neutral)						Water						
LCS Dup (22F0210-BSD1)					Prepared: 06/07/22 07:16 Analyzed: 06/07/22 18:18						Q-19	
Azobenzene (1,2-DPH)	4.50	0.0250	0.0500	ug/L	1	4.00	---	112	61-120%	0.7	30%	B-02, Q-41
Bis(2-Ethylhexyl) adipate	3.98	0.250	0.500	ug/L	1	4.00	---	99	63-121%	1	30%	
3,3'-Dichlorobenzidine	17.0	0.500	1.00	ug/L	1	8.00	---	213	27-129%	18	30%	Q-29, Q-41, E
1,2-Dinitrobenzene	3.14	0.250	0.500	ug/L	1	4.00	---	79	59-120%	1	30%	
1,3-Dinitrobenzene	3.00	0.250	0.500	ug/L	1	4.00	---	75	49-128%	1	30%	
1,4-Dinitrobenzene	3.11	0.250	0.500	ug/L	1	4.00	---	78	54-120%	2	30%	
Pyridine	1.69	0.100	0.200	ug/L	1	4.00	---	42	10-120%	7	30%	
1,2-Dichlorobenzene	1.63	0.0250	0.0500	ug/L	1	4.00	---	41	32-120%	14	30%	
1,3-Dichlorobenzene	1.53	0.0250	0.0500	ug/L	1	4.00	---	38	28-120%	15	30%	
1,4-Dichlorobenzene	1.61	0.0250	0.0500	ug/L	1	4.00	---	40	29-120%	14	30%	
Surr: Nitrobenzene-d5 (Surr)												
			Recovery: 96 %	Limits: 44-120 %	Dilution: 1x		Q-41					
2-Fluorobiphenyl (Surr)			71 %	44-120 %	"							
Phenol-d6 (Surr)			27 %	10-133 %	"							
p-Terphenyl-d14 (Surr)			88 %	50-134 %	"							
2-Fluorophenol (Surr)			43 %	19-120 %	"							
2,4,6-Tribromophenol (Surr)			78 %	43-140 %	"							

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0182 - EPA 3015A						Water						
Blank (22F0182-BLK1)				Prepared: 06/06/22 10:57		Analyzed: 06/07/22 00:48						
EPA 200.8												
Antimony	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Blank (22F0182-BLK2)				Prepared: 06/06/22 10:57		Analyzed: 06/07/22 12:30						
EPA 200.8												
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	Q-16
LCS (22F0182-BS1)				Prepared: 06/06/22 10:57		Analyzed: 06/07/22 00:53						
EPA 200.8												
Antimony	29.0	0.500	1.00	ug/L	1	27.8	---	105	85-115%	---	---	
Arsenic	52.3	0.500	1.00	ug/L	1	55.6	---	94	85-115%	---	---	
Beryllium	26.3	0.100	0.200	ug/L	1	27.8	---	95	85-115%	---	---	
Cadmium	52.3	0.100	0.200	ug/L	1	55.6	---	94	85-115%	---	---	
Chromium	51.3	1.00	2.00	ug/L	1	55.6	---	92	85-115%	---	---	
Copper	53.9	1.00	2.00	ug/L	1	55.6	---	97	85-115%	---	---	
Lead	52.1	0.100	0.200	ug/L	1	55.6	---	94	85-115%	---	---	
Mercury	1.02	0.0400	0.0800	ug/L	1	1.11	---	92	85-115%	---	---	
Nickel	53.9	1.00	2.00	ug/L	1	55.6	---	97	85-115%	---	---	
Selenium	24.8	0.500	1.00	ug/L	1	27.8	---	89	85-115%	---	---	
Silver	26.4	0.100	0.200	ug/L	1	27.8	---	95	85-115%	---	---	
Thallium	24.9	0.100	0.200	ug/L	1	27.8	---	90	85-115%	---	---	
Zinc	56.8	2.00	4.00	ug/L	1	55.6	---	102	85-115%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0182 - EPA 3015A						Water						
Duplicate (22F0182-DUP1)			Prepared: 06/06/22 10:57		Analyzed: 06/07/22 01:42							
QC Source Sample: Non-SDG (A2E1020-01)												
Antimony	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Copper	1.40	1.00	2.00	ug/L	1	---	1.45	---	---	4	20%	J
Lead	0.191	0.100	0.200	ug/L	1	---	0.183	---	---	4	20%	J
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Nickel	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Silver	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Zinc	33.1	2.00	4.00	ug/L	1	---	33.7	---	---	2	20%	

Matrix Spike (22F0182-MS1)

Prepared: 06/06/22 10:57 Analyzed: 06/07/22 01:47

QC Source Sample: Non-SDG (A2E1020-01)

EPA 200.8

Antimony	26.8	0.500	1.00	ug/L	1	27.8	ND	97	70-130%	---	---
Arsenic	51.9	0.500	1.00	ug/L	1	55.6	ND	93	70-130%	---	---
Beryllium	25.8	0.100	0.200	ug/L	1	27.8	ND	93	70-130%	---	---
Cadmium	51.0	0.100	0.200	ug/L	1	55.6	ND	92	70-130%	---	---
Chromium	49.6	1.00	2.00	ug/L	1	55.6	ND	89	70-130%	---	---
Copper	55.4	1.00	2.00	ug/L	1	55.6	1.45	97	70-130%	---	---
Lead	52.1	0.100	0.200	ug/L	1	55.6	0.183	94	70-130%	---	---
Mercury	1.03	0.0400	0.0800	ug/L	1	1.11	ND	93	70-130%	---	---
Nickel	52.5	1.00	2.00	ug/L	1	55.6	ND	95	70-130%	---	---
Selenium	24.1	0.500	1.00	ug/L	1	27.8	ND	87	70-130%	---	---
Silver	26.0	0.100	0.200	ug/L	1	27.8	ND	94	70-130%	---	---
Thallium	24.8	0.100	0.200	ug/L	1	27.8	ND	89	70-130%	---	---
Zinc	84.3	2.00	4.00	ug/L	1	55.6	33.7	91	70-130%	---	---

Matrix Spike (22F0182-MS2)

Prepared: 06/06/22 10:57 Analyzed: 06/07/22 03:12

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle

Wilsonville, OR 97070

Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0182 - EPA 3015A						Water						
Matrix Spike (22F0182-MS2)			Prepared: 06/06/22 10:57 Analyzed: 06/07/22 03:12									
QC Source Sample: Non-SDG (A2F0121-01)												
EPA 200.8												
Antimony	27.7	0.500	1.00	ug/L	1	27.8	ND	100	70-130%	---	---	
Arsenic	56.3	0.500	1.00	ug/L	1	55.6	6.65	89	70-130%	---	---	
Beryllium	25.2	0.100	0.200	ug/L	1	27.8	ND	91	70-130%	---	---	
Cadmium	50.8	0.100	0.200	ug/L	1	55.6	ND	91	70-130%	---	---	
Chromium	49.1	1.00	2.00	ug/L	1	55.6	ND	88	70-130%	---	---	
Copper	60.2	1.00	2.00	ug/L	1	55.6	7.98	94	70-130%	---	---	
Lead	53.7	0.100	0.200	ug/L	1	55.6	4.10	89	70-130%	---	---	
Mercury	0.942	0.0400	0.0800	ug/L	1	1.11	ND	85	70-130%	---	---	
Nickel	55.9	1.00	2.00	ug/L	1	55.6	4.24	93	70-130%	---	---	
Selenium	25.0	0.500	1.00	ug/L	1	27.8	ND	90	70-130%	---	---	
Silver	26.0	0.100	0.200	ug/L	1	27.8	ND	94	70-130%	---	---	
Thallium	24.1	0.100	0.200	ug/L	1	27.8	ND	87	70-130%	---	---	
Zinc	152	2.00	4.00	ug/L	1	55.6	104	87	70-130%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 200.8 (ICPMS) - Low Level

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0281 - EPA 3015A						Water						
Blank (22F0281-BLK1)			Prepared: 06/08/22 10:27 Analyzed: 06/09/22 21:38									
<u>EPA 200.8-LL</u>												
Cadmium	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	
Blank (22F0281-BLK2)			Prepared: 06/08/22 10:27 Analyzed: 06/10/22 18:23									
<u>EPA 200.8-LL</u>												
Arsenic	ND	0.0200	0.0400	ug/L	1	---	---	---	---	---	---	Q-16
LCS (22F0281-BS1)			Prepared: 06/08/22 10:27 Analyzed: 06/09/22 22:59									
<u>EPA 200.8-LL</u>												
Arsenic	5.36	0.100	0.200	ug/L	1	5.56	---	97	85-115%	---	---	
Cadmium	5.10	0.0200	0.0400	ug/L	1	5.56	---	92	85-115%	---	---	
Duplicate (22F0281-DUP1)			Prepared: 06/08/22 10:27 Analyzed: 06/09/22 21:53									
<u>QC Source Sample: Non-SDG (A2E1027-01)</u>												
Cadmium	ND	0.0200	0.0400	ug/L	1	---	ND	---	---	---	20%	
Duplicate (22F0281-DUP2)			Prepared: 06/08/22 10:27 Analyzed: 06/10/22 18:38									
<u>QC Source Sample: Non-SDG (A2E1027-01RE1)</u>												
Arsenic	0.159	0.0200	0.0400	ug/L	1	---	0.156	---	---	2	20%	Q-16
Matrix Spike (22F0281-MS1)			Prepared: 06/08/22 10:27 Analyzed: 06/09/22 23:07									
<u>QC Source Sample: SW-1(052822) (A2F0009-01)</u>												
<u>EPA 200.8-LL</u>												
Arsenic	5.85	0.100	0.200	ug/L	1	5.56	0.357	99	70-130%	---	---	
Cadmium	5.49	0.0200	0.0400	ug/L	1	5.56	0.0523	98	70-130%	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

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9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

QUALITY CONTROL (QC) SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0112 - Total Suspended Solids						Water						
Blank (22F0112-BLK1)			Prepared: 06/02/22 18:53 Analyzed: 06/02/22 18:53									
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Duplicate (22F0112-DUP1)			Prepared: 06/02/22 18:53 Analyzed: 06/02/22 18:53									
QC Source Sample: Non-SDG (A2F0002-01)												
Total Suspended Solids	134	10.0	10.0	mg/L	1	---	126	---	---	6.13	10%	
Reference (22F0112-SRM1)			Prepared: 06/02/22 18:53 Analyzed: 06/02/22 18:53									
SM 2540 D												
Total Suspended Solids	906			mg/L	1	811		112	85-115%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**NV5**9450 SW Commerce Circle
Wilsonville, OR 97070Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

Weck Laboratories, Inc.**QUALITY CONTROL (QC) SAMPLE RESULTS****Organo Tin by GC/MS**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W2F0377 - EPA 3510C						Water						
Blank (W2F0377-BLK1)			Prepared: 06/06/22 10:52		Analyzed: 06/10/22 16:22							
SM 6710B												
Tri-n-butyltin	ND	---	0.0050	ug/l	1	---	---	---	---	---	---	
Surr: Tripentyltin		Recovery: 95 %		Limits: 43-179 %		Dilution: 1x						
LCS (W2F0377-BS1)			Prepared: 06/06/22 10:52		Analyzed: 06/10/22 16:03							
SM 6710B												
Tri-n-butyltin	0.00898	---	0.0050	ug/l	1	0.0100	---	90	50-150%	---	---	
Surr: Tripentyltin		Recovery: 100 %		Limits: 43-179 %		Dilution: 1x						
LCS Dup (W2F0377-BSD1)			Prepared: 06/06/22 10:52		Analyzed: 06/10/22 15:44							
SM 6710B												
Tri-n-butyltin	0.0127	---	0.0050	ug/l	1	0.0100	---	127	50-150%	34	40%	
Surr: Tripentyltin		Recovery: 132 %		Limits: 43-179 %		Dilution: 1x						

Apex Laboratories

Philip Nerenberg, Lab Director

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**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV59450 SW Commerce Circle
Wilsonville, OR 97070Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:**A2F0009 - 07 09 22 1453****SAMPLE PREPARATION INFORMATION****Diesel and/or Oil Hydrocarbons by NWTPH-Dx**

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0123							
A2F0009-01	Water	NWTPH-Dx	05/28/22 14:57	06/03/22 05:26	1070mL/5mL	1000mL/5mL	0.94
A2F0009-02	Water	NWTPH-Dx	05/28/22 15:39	06/03/22 05:26	1070mL/5mL	1000mL/5mL	0.94

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0069							
A2F0009-01	Water	NWTPH-Gx (MS)	05/28/22 14:57	06/02/22 11:06	5mL/5mL	5mL/5mL	1.00
A2F0009-02	Water	NWTPH-Gx (MS)	05/28/22 15:39	06/02/22 11:06	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0069							
A2F0009-01	Water	EPA 8260D	05/28/22 14:57	06/02/22 11:06	5mL/5mL	5mL/5mL	1.00
A2F0009-02	Water	EPA 8260D	05/28/22 15:39	06/02/22 11:06	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0143							
A2F0009-01	Water	EPA 8260D SIM	05/28/22 14:57	06/03/22 13:30	5mL/5mL	5mL/5mL	1.00
A2F0009-02	Water	EPA 8260D SIM	05/28/22 15:39	06/03/22 13:30	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0177							
A2F0009-01	Water	EPA 8082A	05/28/22 14:57	06/06/22 10:19	1060mL/1mL	1000mL/1mL	0.94
A2F0009-02	Water	EPA 8082A	05/28/22 15:39	06/06/22 10:19	1060mL/1mL	1000mL/1mL	0.94

Apex Laboratories

Philip Nerenberg, Lab Director

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503-718-2323

ORELAP ID: OR100062

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9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3510C (Acid/Base Neutral)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0121							
A2F0009-01RE3	Water	EPA 8270E	05/28/22 14:57	06/03/22 05:24	1070mL/1mL	1000mL/1mL	0.94
A2F0009-01RE4	Water	EPA 8270E	05/28/22 14:57	06/03/22 05:24	1070mL/1mL	1000mL/1mL	0.94
A2F0009-02RE1	Water	EPA 8270E	05/28/22 15:39	06/03/22 05:24	1070mL/1mL	1000mL/1mL	0.94
A2F0009-02RE2	Water	EPA 8270E	05/28/22 15:39	06/03/22 05:24	1070mL/1mL	1000mL/1mL	0.94

Total Metals by EPA 200.8 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0182							
A2F0009-01	Water	EPA 200.8	05/28/22 14:57	06/06/22 10:57	45mL/50mL	45mL/50mL	1.00
A2F0009-02	Water	EPA 200.8	05/28/22 15:39	06/06/22 10:57	45mL/50mL	45mL/50mL	1.00

Total Metals by EPA 200.8 (ICPMS) - Low Level

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0281							
A2F0009-01	Water	EPA 200.8-LL	05/28/22 14:57	06/08/22 10:27	45mL/50mL	45mL/50mL	1.00
A2F0009-02	Water	EPA 200.8-LL	05/28/22 15:39	06/08/22 10:27	45mL/50mL	45mL/50mL	1.00

Solid and Moisture Determinations

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0112							
A2F0009-01	Water	SM 2540 D	05/28/22 14:57	06/02/22 18:53			NA
A2F0009-02	Water	SM 2540 D	05/28/22 15:39	06/02/22 18:53			NA

Apex Laboratories

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9450 SW Commerce Circle
Wilsonville, OR 97070

Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

Weck Laboratories, Inc.

SAMPLE PREPARATION INFORMATION

Organo Tin by GC/MS

Prep: EPA 3510C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: W2F0377</u>							
A2F0009-01	Water	SM 6710B	05/28/22 14:57	06/06/22 10:52	1053ml/1ml	1000ml/1ml	0.95
A2F0009-02	Water	SM 6710B	05/28/22 15:39	06/06/22 10:52	1052ml/1ml	1000ml/1ml	0.95

Apex Laboratories

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503-718-2323
ORELAP ID: OR100062

NV5
9450 SW Commerce Circle
Wilsonville, OR 97070

Project: **BCSAmerica-1-02**
Project Number: [none]
Project Manager: Erik Hedberg

Report ID:
A2F0009 - 07 09 22 1453

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- C-07** Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
- E** Estimated Value. The result is above the calibration range of the instrument.
- EST** Result reported as an Estimated Value. Analyte has inconsistent response and GC baseline fluctuation resulting in elevated reporting limit.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- P-09** Due to weathering and/or the presence of an unknown mixture of PCB Congeners, the pattern does not match the standard used for calibration. Results are Estimated and based on the closest matching Aroclor.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +17%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +32%. The results are reported as Estimated Values.

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Philip Nerenberg, Lab Director



ANALYTICAL REPORT

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Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +35%. The results are reported as Estimated Values.
- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- S-03** Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.
- S-06** Surrogate recovery is outside of established control limits.

Apex Laboratories

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Project: **BCSAmerica-1-02**

Project Number: [none]

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A2F0009 - 07 09 22 1453

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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503-718-2323
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Wilsonville, OR 97070

Project: **BCSAmerica-1-02**

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street

503-718-2323

ORELAP ID: **OR100062**

A2F0009 - 07 09 22 1453

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Rosenberg

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

NV5

9450 SW Commerce Circle
Wilsonville, OR 97070Project: BCSAmerica-1-02

Project Number: [none]

Project Manager: Erik Hedberg

Report ID:

A2F0009 - 07 09 22 1453

APEX LABS COOLER RECEIPT FORM

Client: NV5 Element WO#: A2 F0009Project/Project #: BCS America -1-02

Delivery Info:

Date/time received: 5/31/22 @ 1340 By: NWDelivered by: Apex Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 5/31/22 @ 1340 By: NWChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.4</u>	<u>1.7</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>Y</u>	<u>Y</u>					
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>					
Condition:	<u>Good</u>	<u>Good</u>					

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 5/31/22 @ 1310 By: NWAll samples intact? Yes ☒ No ☐ Comments: all in 6/1Bottle labels/COCs agree? Yes ☒ No ☐ Comments: 114 Hill Ambers readSW-1 (05/28/22), lot reads SW-2 (05/28/22), matched by timeCOC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments:

Additional information:

Labeled by: NW Witness: NW Cooler Inspected by: KAM

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

July 07, 2022

Mr. Philip Nerenberg
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: DXN & PCB Subcontract
Work Order: 19863
SDG: A2F0009

Dear Mr. Nerenberg:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 03, 2022. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Enclosures

SUBCONTRACT ORDER

Apex Laboratories

A2F0009

AB 6/1/22

DJS 6/1/22

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone: (910) 795-0421
Fax: -

CFA WO#19863

Sample Name: SW-1(052822)

Water

Sampled: 05/28/22 14:57

(A2F0009-01)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	06/14/22 17:00	05/28/23 14:57	
Containers Supplied:			
(N)1 L Amber Glass - Non Preserved			
(O)1 L Amber Glass - Non Preserved			

Sample Name: SW-2(052822)

Water

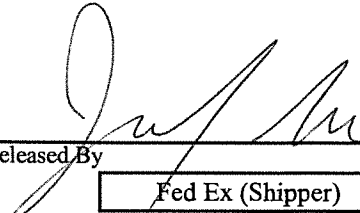
Sampled: 05/28/22 15:39

(A2F0009-02)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB)	06/14/22 17:00	05/28/23 15:39	
Containers Supplied:			
(N)1 L Amber Glass - Non Preserved			
(O)1 L Amber Glass - Non Preserved			

Standard TAT

Temp. = 3.1°C

Released By	Date	Received By	Date
	6/1/22	Fed Ex (Shipper)	
Released By	Date	Received By	Date
Fed Ex (Shipper)		Cynde Larkins	03 JUN 22 @ 1013

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: APEX	Work Order: 19863
Shipping Company: FedEx	Date/Time Received: 03 JUN 22 1013

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?			<input checked="" type="checkbox"/>
Samples < 2x background?			<input checked="" type="checkbox"/>

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?			<input checked="" type="checkbox"/>	Seal intact? Yes No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: ice bags loose ice blue ice dry ice none other (describe) Temperature Blank present: Yes No 3.0° + 0.1 = 3.1°C
5 Aqueous samples found to have visible solids?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: Minimal visible solids
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample IDs, containers affected and pH observed: pH = 8 on all If preservative added, Lot#:
7 Samples requiring preservation have no residual chlorine?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: If preservative added, Lot#:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			List type and number of containers / Sample IDs, containers affected: 2- 1L NMAG bottles per sample . 4 total
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A2F0009
Work Order 19863**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Liquids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3520C
Analytical Batch Number: 50162
Clean Up Batch Number: 50155
Extraction Batch Number: 50154

Sample Analysis

Samples were received at 3.1°C.

The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12032060	Method Blank (MB)
12032061	Laboratory Control Sample (LCS)
12032062	Laboratory Control Sample Duplicate (LCSD)
19863001	SW-1 (052822)
19863002	SW-2 (052822)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 20.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CVS) met the acceptance criteria.

Quality Control (QC) Information**Certification Statement**

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information**Receipt Temperature**

Samples were received within temperature requirements.

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP750_2	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A2F0009 CFA Work Order: 19863


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Erin Suhrie

Date: 07 JUL 2022

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A2F0009
Lab Sample ID: 19863001
Client Sample: 1613B Water
Client ID: SW-1 (052822)
Batch ID: 50162
Run Date: 06/20/2022 07:43
Data File: A18JUN22A_5-6
Prep Batch: 50154
Prep Date: 10-JUN-22

Client: APEX001
Date Collected: 05/28/2022 14:57
Date Received: 06/03/2022 10:13

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 1028.7 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.801	pg/L	0.801	9.72
40321-76-4	1,2,3,7,8-PeCDD	U	1.22	pg/L	1.22	48.6
39227-28-6	1,2,3,4,7,8-HxCDD	U	2.00	pg/L	2.00	48.6
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.80	pg/L	1.80	48.6
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.91	pg/L	1.91	48.6
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	20.9	pg/L	4.47	48.6
3268-87-9	1,2,3,4,6,7,8,9-OCDD		293	pg/L	8.09	97.2
51207-31-9	2,3,7,8-TCDF	U	1.10	pg/L	1.10	9.72
57117-41-6	1,2,3,7,8-PeCDF	U	1.03	pg/L	1.03	48.6
57117-31-4	2,3,4,7,8-PeCDF	U	0.933	pg/L	0.933	48.6
70648-26-9	1,2,3,4,7,8-HxCDF	U	0.960	pg/L	0.960	48.6
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.945	pg/L	0.945	48.6
60851-34-5	2,3,4,6,7,8-HxCDF	U	0.976	pg/L	0.976	48.6
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.52	pg/L	1.52	48.6
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	2.61	pg/L	1.49	48.6
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.12	pg/L	2.12	48.6
39001-02-0	1,2,3,4,6,7,8,9-OCDF	J	5.25	pg/L	3.85	97.2
41903-57-5	Total TeCDD	U	0.801	pg/L	0.801	9.72
36088-22-9	Total PeCDD	U	1.22	pg/L	1.22	48.6
34465-46-8	Total HxCDD	JK	5.35	pg/L	1.80	48.6
37871-00-4	Total HpCDD	J	48.7	pg/L	4.47	48.6
30402-14-3	Total TeCDF	U	1.10	pg/L	1.10	9.72
30402-15-4	Total PeCDF	JK	0.680	pg/L	0.548	48.6
55684-94-1	Total HxCDF	JK	3.03	pg/L	0.945	48.6
38998-75-3	Total HpCDF	JK	7.02	pg/L	1.49	48.6
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.324	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.06	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1630	1940	pg/L	83.9	(25%-164%)
13C-1,2,3,7,8-PeCDD		1640	1940	pg/L	84.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1470	1940	pg/L	75.5	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1660	1940	pg/L	85.6	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1560	1940	pg/L	80.2	(23%-140%)
13C-OCDD		2860	3890	pg/L	73.6	(17%-157%)
13C-2,3,7,8-TCDF		1440	1940	pg/L	74.0	(24%-169%)
13C-1,2,3,7,8-PeCDF		1510	1940	pg/L	77.9	(24%-185%)
13C-2,3,4,7,8-PeCDF		1590	1940	pg/L	81.6	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1430	1940	pg/L	73.4	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1580	1940	pg/L	81.3	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1600	1940	pg/L	82.2	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1400	1940	pg/L	72.0	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A2F0009	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	19863001	Date Collected:	05/28/2022 14:57	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	06/03/2022 10:13		
Client ID:	SW-1 (052822)			Prep Basis:	As Received
Batch ID:	50162	Method:	EPA Method 1613B		
Run Date:	06/20/2022 07:43	Analyst:	CLP	Instrument:	HRP750
Data File:	A18JUN22A_5-6			Dilution:	1
Prep Batch:	50154	Prep Method:	SW846 3520C		
Prep Date:	10-JUN-22	Prep Aliquot:	1028.7 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1380	1940	pg/L	71.1	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1470	1940	pg/L	75.7	(26%-138%)
37Cl-2,3,7,8-TCDD			216	194	pg/L	111	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A2F0009
Lab Sample ID: 19863002
Client Sample: 1613B Water
Client ID: SW-2 (052822)
Batch ID: 50162
Run Date: 06/20/2022 08:33
Data File: A18JUN22A_5-7
Prep Batch: 50154
Prep Date: 10-JUN-22

Client: APEX001
Date Collected: 05/28/2022 15:39
Date Received: 06/03/2022 10:13

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 1029.1 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.38	pg/L	1.38	9.72
40321-76-4	1,2,3,7,8-PeCDD	U	1.40	pg/L	1.40	48.6
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.71	pg/L	1.71	48.6
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.47	pg/L	1.47	48.6
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.60	pg/L	1.60	48.6
35822-46-9	1,2,3,4,6,7,8-HpCDD	JK	36.1	pg/L	6.72	48.6
3268-87-9	1,2,3,4,6,7,8,9-OCDD		445	pg/L	6.65	97.2
51207-31-9	2,3,7,8-TCDF	U	1.58	pg/L	1.58	9.72
57117-41-6	1,2,3,7,8-PeCDF	U	1.22	pg/L	1.22	48.6
57117-31-4	2,3,4,7,8-PeCDF	U	1.22	pg/L	1.22	48.6
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.14	pg/L	1.14	48.6
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.06	pg/L	1.06	48.6
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.09	pg/L	1.09	48.6
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.65	pg/L	1.65	48.6
67562-39-4	1,2,3,4,6,7,8-HpCDF	J	6.08	pg/L	0.993	48.6
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	1.49	pg/L	1.49	48.6
39001-02-0	1,2,3,4,6,7,8,9-OCDF	JK	10.3	pg/L	3.75	97.2
41903-57-5	Total TeCDD	U	1.38	pg/L	1.38	9.72
36088-22-9	Total PeCDD	U	1.40	pg/L	1.40	48.6
34465-46-8	Total HxCDD	JK	8.32	pg/L	1.47	48.6
37871-00-4	Total HpCDD	JK	75.9	pg/L	6.72	48.6
30402-14-3	Total TeCDF	U	1.58	pg/L	1.58	9.72
30402-15-4	Total PeCDF	JK	6.37	pg/L	0.544	48.6
55684-94-1	Total HxCDF	J	5.91	pg/L	1.06	48.6
38998-75-3	Total HpCDF	J	13.9	pg/L	0.993	48.6
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.559	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.72	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1620	1940	pg/L	83.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		1650	1940	pg/L	84.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1390	1940	pg/L	71.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1490	1940	pg/L	76.8	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1590	1940	pg/L	81.7	(23%-140%)
13C-OCDD		2800	3890	pg/L	72.0	(17%-157%)
13C-2,3,7,8-TCDF		1440	1940	pg/L	74.4	(24%-169%)
13C-1,2,3,7,8-PeCDF		1510	1940	pg/L	77.7	(24%-185%)
13C-2,3,4,7,8-PeCDF		1530	1940	pg/L	78.5	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1280	1940	pg/L	65.9	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1400	1940	pg/L	71.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1440	1940	pg/L	74.2	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1430	1940	pg/L	73.7	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number:	A2F0009	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	19863002	Date Collected:	05/28/2022 15:39	Matrix:	WATER
Client Sample:	1613B Water	Date Received:	06/03/2022 10:13		
Client ID:	SW-2 (052822)			Prep Basis:	As Received
Batch ID:	50162	Method:	EPA Method 1613B		
Run Date:	06/20/2022 08:33	Analyst:	CLP	Instrument:	HRP750
Data File:	A18JUN22A_5-7			Dilution:	1
Prep Batch:	50154	Prep Method:	SW846 3520C		
Prep Date:	10-JUN-22	Prep Aliquot:	1029.1 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1380	1940	pg/L	70.8	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1470	1940	pg/L	75.8	(26%-138%)
37Cl-2,3,7,8-TCDD			209	194	pg/L	108	(35%-197%)

Comments:

- J** Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans **Surrogate Recovery Report**

SDG Number: A2F0009

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12032061	LCS for batch 50154	13C-2,3,7,8-TCDD		73.1	(20%-175%)
		13C-1,2,3,7,8-PeCDD		75.9	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		60.1	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		68.8	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		71.4	(22%-166%)
		13C-OCDD		67.5	(13%-199%)
		13C-2,3,7,8-TCDF		65.4	(22%-152%)
		13C-1,2,3,7,8-PeCDF		69.4	(21%-192%)
		13C-2,3,4,7,8-PeCDF		69.2	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		56.5	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		64.0	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		64.2	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		62.8	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		61.4	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		64.3	(20%-186%)
		37Cl-2,3,7,8-TCDD		111	(31%-191%)
12032062	LCSD for batch 50154	13C-2,3,7,8-TCDD		83.4	(20%-175%)
		13C-1,2,3,7,8-PeCDD		86.0	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		70.2	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		76.1	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		80.8	(22%-166%)
		13C-OCDD		79.2	(13%-199%)
		13C-2,3,7,8-TCDF		71.0	(22%-152%)
		13C-1,2,3,7,8-PeCDF		75.9	(21%-192%)
		13C-2,3,4,7,8-PeCDF		80.8	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		64.8	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		71.5	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		72.9	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		72.5	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		71.3	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		76.4	(20%-186%)
		37Cl-2,3,7,8-TCDD		110	(31%-191%)
12032060	MB for batch 50154	13C-2,3,7,8-TCDD		84.3	(25%-164%)
		13C-1,2,3,7,8-PeCDD		84.6	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		66.0	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		76.2	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		80.0	(23%-140%)
		13C-OCDD		79.1	(17%-157%)
		13C-2,3,7,8-TCDF		73.9	(24%-169%)
		13C-1,2,3,7,8-PeCDF		77.6	(24%-185%)
		13C-2,3,4,7,8-PeCDF		80.5	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		62.1	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		69.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		71.1	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		71.4	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		70.8	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		72.3	(26%-138%)
		37Cl-2,3,7,8-TCDD		108	(35%-197%)
19863001	SW-1 (052822)	13C-2,3,7,8-TCDD		83.9	(25%-164%)

Hi-Res Dioxins/Furans Surrogate Recovery Report

SDG Number: A2F0009

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
19863001	SW-1 (052822)	13C-1,2,3,7,8-PeCDD		84.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		75.5	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		85.6	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		80.2	(23%-140%)
		13C-OCDD		73.6	(17%-157%)
		13C-2,3,7,8-TCDF		74.0	(24%-169%)
		13C-1,2,3,7,8-PeCDF		77.9	(24%-185%)
		13C-2,3,4,7,8-PeCDF		81.6	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		73.4	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		81.3	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		82.2	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		72.0	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		71.1	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		75.7	(26%-138%)
		37Cl-2,3,7,8-TCDD		111	(35%-197%)
19863002	SW-2 (052822)	13C-2,3,7,8-TCDD		83.1	(25%-164%)
		13C-1,2,3,7,8-PeCDD		84.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		71.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		76.8	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		81.7	(23%-140%)
		13C-OCDD		72.0	(17%-157%)
		13C-2,3,7,8-TCDF		74.4	(24%-169%)
		13C-1,2,3,7,8-PeCDF		77.7	(24%-185%)
		13C-2,3,4,7,8-PeCDF		78.5	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		65.9	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		71.9	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		74.2	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		73.7	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		70.8	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		75.8	(26%-138%)
		37Cl-2,3,7,8-TCDD		108	(35%-197%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 1 of 2

SDG Number: A2F0009

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 50154

Matrix: WATER

Lab Sample ID: 12032061

Instrument: HRP750

Analysis Date: 06/19/2022 15:48

Dilution: 1

Analyst: CLP

Prep Batch ID: 50154

Batch ID: 50162

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	200	186	93.2	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	1000	1010	101	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	1000	1040	104	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	1000	1050	105	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	1000	1140	114	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	1000	1030	103	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	2000	2080	104	78-144
51207-31-9	LCS 2,3,7,8-TCDF	200	214	107	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	1000	1020	102	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	1000	1050	105	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	1000	1010	101	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	1000	1030	103	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	1000	1010	101	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	1000	1070	107	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	1000	990	99	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	1000	1040	104	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	2000	2100	105	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

Page 2 of 2

SDG Number: A2F0009

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 50154

Matrix: WATER

Lab Sample ID: 12032062

Instrument: HRP750

Analysis Date: 06/19/2022 16:37

Dilution: 1

Analyst: CLP

Prep Batch ID: 50154

Batch ID: 50162

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	200	166	83.2	67-158	11.2	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	1000	902	90.2	70-142	11.0	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	1000	924	92.4	70-164	12.1	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	1000	937	93.7	76-134	11.5	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	1000	1030	103	64-162	9.99	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	1000	908	90.8	70-140	12.1	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	2000	1810	90.3	78-144	14.3	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	200	196	97.9	75-158	8.94	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	1000	923	92.3	80-134	9.67	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	1000	877	87.7	68-160	18.3	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	1000	901	90.1	72-134	11.8	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	1000	904	90.4	84-130	13.0	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	1000	905	90.5	70-156	11.2	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	1000	920	92	78-130	14.9	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	1000	839	83.9	82-122	16.5	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	1000	871	87.1	78-138	17.3	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	2000	1780	89.2	63-170	16.5	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A2F0009
Client ID: MB for batch 50154
Lab Sample ID: 12032060
Column:

Client: APEX001
Instrument ID: HRP750
Prep Date: 10-JUN-22

Matrix: WATER
Data File: A18JUN22A_4-3
Analyzed: 06/19/22 17:27

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 50154	12032061	A18JUN22A_4-1	06/19/22	1548
02 LCSD for batch 50154	12032062	A18JUN22A_4-2	06/19/22	1637
03 SW-1 (052822)	19863001	A18JUN22A_5-6	06/20/22	0743
04 SW-2 (052822)	19863002	A18JUN22A_5-7	06/20/22	0833

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

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SDG Number: A2F0009
Lab Sample ID: 12032060
Client Sample: QC for batch 50154
Client ID: MB for batch 50154
Batch ID: 50162
Run Date: 06/19/2022 17:27
Data File: A18JUN22A_4-3
Prep Batch: 50154
Prep Date: 10-JUN-22

Client: APEX001

Method: EPA Method 1613B
Analyst: CLP

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: APEX00320
Matrix: WATER

Prep Basis: As Received

Instrument: HRP750
Dilution: 1

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	1.33	pg/L	1.33	10.0
40321-76-4	1,2,3,7,8-PeCDD	U	1.14	pg/L	1.14	50.0
39227-28-6	1,2,3,4,7,8-HxCDD	U	1.32	pg/L	1.32	50.0
57653-85-7	1,2,3,6,7,8-HxCDD	U	1.25	pg/L	1.25	50.0
19408-74-3	1,2,3,7,8,9-HxCDD	U	1.30	pg/L	1.30	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	2.22	pg/L	2.22	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD	U	2.56	pg/L	2.56	100
51207-31-9	2,3,7,8-TCDF	U	1.66	pg/L	1.66	10.0
57117-41-6	1,2,3,7,8-PeCDF	U	1.23	pg/L	1.23	50.0
57117-31-4	2,3,4,7,8-PeCDF	U	1.03	pg/L	1.03	50.0
70648-26-9	1,2,3,4,7,8-HxCDF	U	1.35	pg/L	1.35	50.0
57117-44-9	1,2,3,6,7,8-HxCDF	U	1.33	pg/L	1.33	50.0
60851-34-5	2,3,4,6,7,8-HxCDF	U	1.26	pg/L	1.26	50.0
72918-21-9	1,2,3,7,8,9-HxCDF	U	1.90	pg/L	1.90	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF	U	1.43	pg/L	1.43	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	2.08	pg/L	2.08	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	2.86	pg/L	2.86	100
41903-57-5	Total TeCDD	U	1.33	pg/L	1.33	10.0
36088-22-9	Total PeCDD	U	1.14	pg/L	1.14	50.0
34465-46-8	Total HxCDD	U	1.25	pg/L	1.25	50.0
37871-00-4	Total HpCDD	U	2.22	pg/L	2.22	50.0
30402-14-3	Total TeCDF	U	1.66	pg/L	1.66	10.0
30402-15-4	Total PeCDF	U	0.716	pg/L	0.716	50.0
55684-94-1	Total HxCDF	U	1.26	pg/L	1.26	50.0
38998-75-3	Total HpCDF	U	1.43	pg/L	1.43	50.0
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.000	pg/L		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		2.01	pg/L		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1690	2000	pg/L	84.3	(25%-164%)
13C-1,2,3,7,8-PeCDD		1690	2000	pg/L	84.6	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		1320	2000	pg/L	66.0	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		1520	2000	pg/L	76.2	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		1600	2000	pg/L	80.0	(23%-140%)
13C-OCDD		3160	4000	pg/L	79.1	(17%-157%)
13C-2,3,7,8-TCDF		1480	2000	pg/L	73.9	(24%-169%)
13C-1,2,3,7,8-PeCDF		1550	2000	pg/L	77.6	(24%-185%)
13C-2,3,4,7,8-PeCDF		1610	2000	pg/L	80.5	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		1240	2000	pg/L	62.1	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		1400	2000	pg/L	69.9	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		1420	2000	pg/L	71.1	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		1430	2000	pg/L	71.4	(29%-147%)

Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary

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SDG Number:	A2F0009	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12032060			Matrix:	WATER
Client Sample:	QC for batch 50154				
Client ID:	MB for batch 50154			Prep Basis:	As Received
Batch ID:	50162	Method:	EPA Method 1613B		
Run Date:	06/19/2022 17:27	Analyst:	CLP	Instrument:	HRP750
Data File:	A18JUN22A_4-3			Dilution:	1
Prep Batch:	50154	Prep Method:	SW846 3520C		
Prep Date:	10-JUN-22	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			1420	2000	pg/L	70.8	(28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			1450	2000	pg/L	72.3	(26%-138%)
37Cl-2,3,7,8-TCDD			215	200	pg/L	108	(35%-197%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary				Page 1 of 1	
SDG Number:	A2F0009	Client:	APEX001	Project:	APEX00320
Lab Sample ID:	12032061			Matrix:	WATER
Client Sample:	QC for batch 50154				
Client ID:	LCS for batch 50154			Prep Basis:	As Received
Batch ID:	50162	Method:	EPA Method 1613B		
Run Date:	06/19/2022 15:48	Analyst:	CLP	Instrument:	HRP750
Data File:	A18JUN22A_4-1			Dilution:	1
Prep Batch:	50154	Prep Method:	SW846 3520C		
Prep Date:	10-JUN-22	Prep Aliquot:	1000 mL		

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		186	pg/L	2.42	10.0
40321-76-4	1,2,3,7,8-PeCDD		1010	pg/L	5.04	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		1040	pg/L	7.02	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		1050	pg/L	6.80	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		1140	pg/L	7.00	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		1030	pg/L	12.5	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		2080	pg/L	17.0	100
51207-31-9	2,3,7,8-TCDF		214	pg/L	3.42	10.0
57117-41-6	1,2,3,7,8-PeCDF		1020	pg/L	6.18	50.0
57117-31-4	2,3,4,7,8-PeCDF		1050	pg/L	5.84	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		1010	pg/L	9.48	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		1030	pg/L	9.24	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		1010	pg/L	9.94	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		1070	pg/L	14.8	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		990	pg/L	9.22	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		1040	pg/L	14.9	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		2100	pg/L	17.2	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1460	2000	pg/L	73.1	(20%-175%)
13C-1,2,3,7,8-PeCDD		1520	2000	pg/L	75.9	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1200	2000	pg/L	60.1	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1380	2000	pg/L	68.8	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1430	2000	pg/L	71.4	(22%-166%)
13C-OCDD		2700	4000	pg/L	67.5	(13%-199%)
13C-2,3,7,8-TCDF		1310	2000	pg/L	65.4	(22%-152%)
13C-1,2,3,7,8-PeCDF		1390	2000	pg/L	69.4	(21%-192%)
13C-2,3,4,7,8-PeCDF		1380	2000	pg/L	69.2	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1130	2000	pg/L	56.5	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1280	2000	pg/L	64.0	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1280	2000	pg/L	64.2	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1260	2000	pg/L	62.8	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1230	2000	pg/L	61.4	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1290	2000	pg/L	64.3	(20%-186%)
37Cl-2,3,7,8-TCDD		222	200	pg/L	111	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

Hi-Res Dioxins/Furans Certificate of Analysis Sample Summary						
SDG Number: A2F0009			Client: APEX001		Project: APEX00320	
Lab Sample ID: 12032062					Matrix: WATER	
Client Sample: QC for batch 50154						
Client ID: LCSD for batch 50154					Prep Basis: As Received	
Batch ID: 50162			Method: EPA Method 1613B			
Run Date: 06/19/2022 16:37			Analyst: CLP		Instrument: HRP750	
Data File: A18JUN22A_4-2					Dilution: 1	
Prep Batch: 50154			Prep Method: SW846 3520C			
Prep Date: 10-JUN-22			Prep Aliquot: 1000 mL			

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		166	pg/L	2.16	10.0
40321-76-4	1,2,3,7,8-PeCDD		902	pg/L	4.74	50.0
39227-28-6	1,2,3,4,7,8-HxCDD		924	pg/L	7.48	50.0
57653-85-7	1,2,3,6,7,8-HxCDD		937	pg/L	7.34	50.0
19408-74-3	1,2,3,7,8,9-HxCDD		1030	pg/L	7.52	50.0
35822-46-9	1,2,3,4,6,7,8-HpCDD		908	pg/L	9.34	50.0
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1810	pg/L	16.8	100
51207-31-9	2,3,7,8-TCDF		196	pg/L	3.28	10.0
57117-41-6	1,2,3,7,8-PeCDF		923	pg/L	5.36	50.0
57117-31-4	2,3,4,7,8-PeCDF		877	pg/L	5.06	50.0
70648-26-9	1,2,3,4,7,8-HxCDF		901	pg/L	8.34	50.0
57117-44-9	1,2,3,6,7,8-HxCDF		904	pg/L	7.98	50.0
60851-34-5	2,3,4,6,7,8-HxCDF		905	pg/L	7.54	50.0
72918-21-9	1,2,3,7,8,9-HxCDF		920	pg/L	12.0	50.0
67562-39-4	1,2,3,4,6,7,8-HpCDF		839	pg/L	7.36	50.0
55673-89-7	1,2,3,4,7,8,9-HpCDF		871	pg/L	11.6	50.0
39001-02-0	1,2,3,4,6,7,8,9-OCDF		1780	pg/L	16.7	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		1670	2000	pg/L	83.4	(20%-175%)
13C-1,2,3,7,8-PeCDD		1720	2000	pg/L	86.0	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		1400	2000	pg/L	70.2	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		1520	2000	pg/L	76.1	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		1620	2000	pg/L	80.8	(22%-166%)
13C-OCDD		3170	4000	pg/L	79.2	(13%-199%)
13C-2,3,7,8-TCDF		1420	2000	pg/L	71.0	(22%-152%)
13C-1,2,3,7,8-PeCDF		1520	2000	pg/L	75.9	(21%-192%)
13C-2,3,4,7,8-PeCDF		1620	2000	pg/L	80.8	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		1300	2000	pg/L	64.8	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		1430	2000	pg/L	71.5	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		1460	2000	pg/L	72.9	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		1450	2000	pg/L	72.5	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		1430	2000	pg/L	71.3	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		1530	2000	pg/L	76.4	(20%-186%)
37Cl-2,3,7,8-TCDD		220	200	pg/L	110	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

